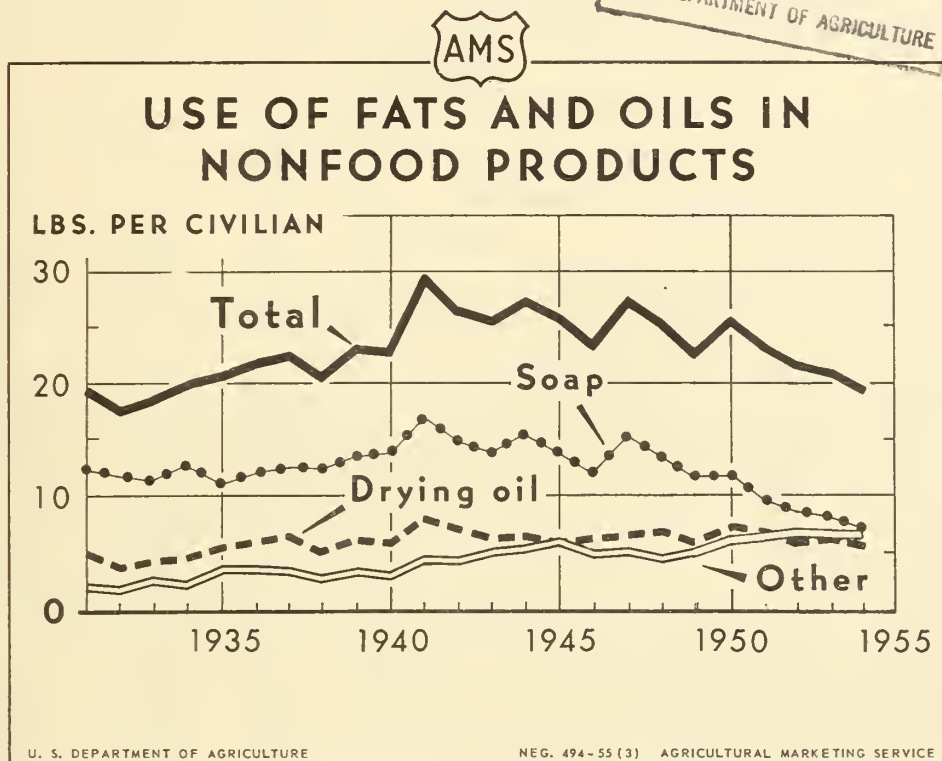
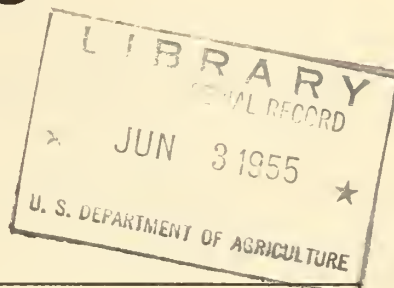


Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

The FATS and OILS SITUATION

FOS-171



Nonfood uses of fats and oils dropped to 19.5 pounds per person in 1954. This is 1.4 pounds below the year before and the least since the depths of the depression in the early 30's. Reduced use in soap mainly reflects increased competition from synthetics. Drying oils were adversely affected by com-

petition from other materials and by the general decline in industrial activity which took place last year. Fats and oils probably will meet increasing competition from synthetics in 1955 but this may be offset by the recent upturn in economic activity.

Table 1.- Wholesale prices per pound for fats, oils, and glycerin at specified markets

Item	February		1954	1955	
	1953	1954	December	January	February
	Cents	Cents	Cents	Cents	Cents
Babassu oil, tanks, New York	---	---	---	---	---
Butter, creamery, Grade A (92-score) bulk, New York	66.6	65.8	60.8	58.1	58.1
Butter, creamery, Grade B, (90-score) bulk, Chicago	65.2	63.7	59.0	57.1	56.8
Castor oil, dehydrated, tanks, New York	30.1	22.6	21.6	21.4	20.6
Castor oil, No. 1, tanks, f.o.b. New Jersey mills	25.0	18.0	17.0	16.8	16.0
Castor oil, No. 3, technical, drums, carlots, f.o.b. N.Y.	25.8	18.8	17.8	17.8	16.6
Coconut oil, crude, tank cars, Pacific Coast, f.o.b. mill 1/ ..	19.8	17.9	15.4	15.8	15.7
Coconut oil, crude, tanks, Atlantic ports (tax included)	20.8	19.3	16.4	16.8	16.9
Coconut oil, Cochín type, refined, drums, N.Y. (tax included) ..	25.0	24.0	20.8	21.8	21.8
Cod oil, Newfoundland, drums, New York	9.5	9.5	9.2	9.2	10.2
Codliver oil, medicinal, U.S.P., barrels, New York	20.2	20.2	19.5	19.5	19.5
Corn oil, crude, tank cars, f.o.b. Midwest mills	13.7	13.4	13.2	13.3	13.4
Corn oil, refined, drums, New York	19.5	19.7	20.5	20.5	20.5
Cottonseed oil, crude, tank cars, f.o.b. S.E. mills	14.2	12.6	13.0	13.0	13.1
Cottonseed oil, p.s.y., bleachable, tank cars, New York 2/ ...	16.5	15.0	15.0	15.1	15.1
Cottonseed-oil foots, raw (50 percent T.F.A) delivered East ..	1.3	1.6	2.2	2.3	2.6
Cottonseed oil, refined, drums, New York	22.8	19.6	20.5	20.6	20.5
Degras, common, barrels, New York	11.0	11.0	10.0	10.0	10.0
Glycerin, soaplye, basis 80 percent, tanks, New York	31.0	19.8	21.0	21.0	21.0
Grease, A white, tank cars, f.o.b. Chicago	4.0	7.8	7.3	7.8	7.7
Grease, yellow, tank cars, f.o.b. Chicago	3.5	6.8	6.6	7.1	7.1
Lard, loose, tank cars, Chicago	7.9	15.9	12.1	11.5	11.1
Lard, prime steam, tierces, Chicago	9.3	17.0	13.5	12.9	12.5
Lard, refined, 1-pound cartons, Chicago	12.0	20.8	17.2	16.6	15.7
Linseed oil, raw, tank cars, Minneapolis	14.8	14.0	12.6	12.3	12.5
Linseed oil, raw, drums, carlots, New York	17.4	16.8	15.4	15.0	15.1
Margarine, white, domestic vegetable, Chicago	28.0	27.0	26.0	26.0	26.0
Menhaden oil, light pressed, tanks, New York	10.5	11.5	11.0	11.0	11.0
Neat's-foot oil, 30°, drums, carlots, New York	29.0	30.0	30.0	30.0	30.0
Oiticica oil, drums, f.c.b. New York	26.1	22.8	16.5	16.4	16.0
Oleo oil, extra, drums, New York	10.6	18.5	18.5	16.8	15.6
Oleostearine, barrels, New York	6.8	11.9	13.2	12.7	11.5
Olive oil, imported, edible, drums, New York	34.4	31.3	31.3	31.3	31.3
Olive oil foots, domestic, drums, carlots, New York	15.0	---	---	---	---
Palm oil, Congo, drums, f.o.b. New York 3/	12.3	13.0	12.5	12.8	13.0
Peanut oil, crude, tank cars, f.o.b. S.E. mills	22.9	17.9	19.2	18.8	17.9
Peanut oil, refined, drums, New York	32.0	25.1	26.6	25.8	25.5
Rapeseed oil, refined (denatured), tanks, New York	16.6	16.6	17.0	17.0	17.0
Sardine oil, crude, tanks, Pacific Coast	---	---	8.5	8.5	8.6
Sesame oil, refined, drums, New York	36.0	36.0	36.0	36.0	36.0
Soybean oil, crude, tank cars, f.o.b. Midwest mills	12.6	12.5	12.5	12.2	12.2
Soybean oil, refined, drums, New York	19.1	18.6	19.5	19.4	19.4
Shortening, containing animal fat, 1-pound cartons, Chicago ..	24.8	25.3	27.6	27.5	27.8
Shortening, cottonseed, hydrogenated, 10-drum lots, New York ..	22.2	22.0	22.8	22.8	22.8
Sperm oil, natural, 45°, drums, New York	12.5	13.8	15.2	15.2	15.2
Tall oil, refined, tanks, works	5.0	5.0	5.0	5.0	5.0
Tallow, edible, loose, Chicago	5.5	8.9	11.1	9.6	9.6
Tallow, inedible, packers' prime, tank cars, f.o.b. Chicago ..	3.9	7.4	7.3	7.8	7.7
Tallow, No. 1, inedible, Chicago	3.5	6.8	6.8	7.2	7.2
Tung oil, imported, drums, carlots, f.o.b. New York	31.5	25.6	22.2	23.6	24.4
Tung oil, tanks, New York	29.9	23.8	20.7	22.1	22.9

1/ Three-cent processing tax added to prices as originally quoted.

2/ Near-by futures.

3/ Tax excluded. Tax does not apply to palm oil used in the manufacture of iron or steel products, tin andterne plate. Since 1943 these are the major uses of palm oil.

Prices compiled from Oil, Paint, and Drug Reporter; The National Provisioner; The Journal of Commerce (New York); Wall Street Journal, Chicago edition; reports of Bureau of Labor Statistics, and reports of Commodity Stabilization Service. Excise taxes and duties included where applicable.

- - - - -
 T H E F A T S A N D O I L S S I T U A T I O N
 - - - - -

Approved by the Outlook and Situation Board, March 24, 1955

CONTENTS	
	<u>Page</u>
: Summary and Outlook	3 :
: Recent Developments	4 :
: Nonfood Uses of Fats and Oils	12 :
: Outlook for Drying Oils	14 :
: Outlook for Tung Nuts	19 :

SUMMARY

Record supplies dominate the outlook for soybeans this spring and summer and prices are not likely to show their usual seasonal strength. Exports for the first 5 months of the 1954-55 marketing year were above any other year but crushings were small in relation to the record large crop. About 175 million bushels will be available in March-September 1955 for crushing, exports and ending stocks. This is about 13 percent more than the previous peak in 1950.

Per capita domestic disappearance of food fats this crop year (ending September 30, 1955) is not likely to differ greatly from a year ago. Exports (including the oil equivalent of oilseeds), however, are expected to establish a new record of well over 2 billion pounds compared with the previous peak of 1.6 billion in the 1950 and 1953 crop years. Most of the increase will be in cottonseed oil, soybeans and lard. Nearly all of the cotton oil exported will be from Government stocks at prices below those in the U. S. domestic market. Total stocks of food fats on October 1, 1955 will be down sharply from the peak level of the past two years but still will be high. There is likely to be little change in commercial stocks as all of the decline probably will be in CCC holdings.

Early season indications are that production of all food fats in the crop year beginning October 1, 1955 will be about the same as the record quantity likely to be produced in the present crop year. Increases expected in soybeans and lard will offset reduced output of cotton oil and butter.

More lard and grease are expected mainly because of a prospective 5-7 percent increase in the 1955 spring pig crop compared with a year earlier. Cattle slaughter in 1955-56 is expected to continue high which will provide plenty of tallow. The number of cattle on farms January 1, 1955 was at a new peak, although up less than 1 percent from the year before.

The intentions report of March 18 gave the following indications as to 1955 acreages for oilseeds:

Soybean plantings to be up 7 percent from last year's record level. A substantial increase is reported in the North Central States, the principal soybean producing area. In general, the increase is in those areas that had good yields last year. At the time farmers reported their intentions to plant, the 18 cent per bushel drop in the support price for the 1955 crop had not yet been announced. This may cause some revision in growers' intentions.

Land planted to flaxseed to be down 4 percent from last year, but still will be the third largest in 36 years of record. If growing conditions are average (they were below average last year) production would be the most since 1948 and well above probable domestic use. Support for the 1955 crop is 23 cents per bushel less than the year before.

Practically no change from last year in the land to be planted to peanuts. Peanuts are under controls and the acreage allotment for the 1955 crop is the same as a year ago. However, the picked and threshed acreage may be greater as unfavorable weather last summer caused some land that was intended for picking and threshing to be diverted to hay.

The first indications of cotton acreage will not be available until July. However, the Department has set an acreage allotment of 18.2 million acres for the 1955 crop, 3.3 million less than last year's allotment. Usually, some farmers do not plant all their allotted acreage. The Department recently announced that the support for 1955 crop cottonseed will be \$8.00 per ton less than the year before.

RECENT DEVELOPMENTS

Lard Prices Drop: Likely to Rise Later

Lard prices have dropped considerably since October 1, 1954 (the beginning of the present marketing year) and in mid-March were the lowest since June 1953. The decline reflects increased output. Production in October 1954-January 1955 was about 135 million pounds, 15 percent, greater than last year. Stocks on February 1 were 48 million pounds above the very small stocks of a year ago. October-January exports were up 89 million pounds while domestic use was about the same as last year. Lard prices are likely to strengthen later in the crop year, as the seasonal peak of output has now passed, and domestic use and exports are expected to be large enough to result in a substantial decline in stocks by the end of the crop year.

Butter Use Up, Margarine Same

Stocks of butter have been reduced sharply in recent months. Compared with a year ago production declined moderately while domestic use and exports increased. Lower output resulted from a slight decline

Table 2.- Indicated 1955 acreage of soybeans, flaxseed, and peanuts
(based on March intentions), with comparisons

Year	Soybeans				Flaxseed				Peanuts			
	Planted: 1/ acres	Harvested: for beans acres	Yield per: harvested: acre	Pro- duction: bushels	Planted: acres	Yield per: acre planted	Pro- duction: bushels	Planted: 1/ acres	Picked: and threshed: acres	Yield per: acre picked: and threshed: pounds	Pro- duction: pounds	Million
	1,000	1,000	Bushels	Million	1,000	Bushels	Million	1,000	1,000	Pounds	Million	pounds
Average	13,515	10,319	18.5	190.7	4,430	8.3	36.8	4,202	3,278	649	2,123	
1942-45												
1946	11,706	9,932	20.5	203.4	2,641	8.6	22.6	3,883	3,141	649	2,038	
1947	13,052	11,411	16.3	186.5	4,264	9.5	40.6	4,094	3,377	646	2,182	
1948	11,987	10,682	21.3	227.2	5,121	10.7	54.8	3,824	3,296	709	2,336	
1949	11,872	10,482	22.3	234.2	5,348	8.0	43.0	2,765	2,308	803	1,865	
1950	15,129	13,814	21.7	299.3	4,274	9.4	40.2	2,670	2,268	898	2,037	
1951	15,120	13,545	20.9	282.5	4,116	8.4	34.7	2,592	2,009	834	1,676	
1952	15,927	14,338	20.8	298.1	3,444	8.8	30.2	1,936	1,460	936	1,366	
1953	16,367	14,679	18.3	268.5	4,640	7.9	36.7	1,882	1,541	1,031	1,588	
1954 2/	18,753	17,037	20.1	342.8	5,959	7.0	41.5	1,932	1,368	763	1,044	
1955 3/	19,981			4/375	5,743		5/47	1,914			6/1,400	

1/ Acreage grown alone for all purposes.

2/ Preliminary.

3/ Indicated.

4/ If the same proportion of total acreage of soybeans is harvested for beans as in the last 2 years and the 1949-53 average yield by States is obtained.

5/ Based upon the 1949-53 average yield by States.

6/ If the usual relation between planted acreage and picked and threshed acreage prevails and the 1949-53 average yield by States is obtained.

in milk production and increased consumption of fluid milk. Government disposal programs for butter account for some of the rise in domestic use and nearly all of the exports. Lower prices than a year ago, also have encouraged greater domestic consumption per person and the total for October 1954-September 1955 will be up from a year earlier.

Consumption of margarine in 1954-55 is expected to be about the same as the 8.2 pounds (actual weight) per person consumed a year earlier. Domestic use through the first four months was near last year's level.

Tallow Prices Weaken

Prices of inedible tallow and greases have weakened recently. Production in the first 4 months of the 1954-55 crop year was up slightly from a year ago and total disappearance (domestic plus exports) declined somewhat. Stocks at the end of January 1955 were about the same as at the beginning of the crop year. In the same period a year earlier, stocks declined sharply, having been at very high levels. However, stocks on January 31, 1955 still were somewhat less than a year ago.

Table 3.- Wholesale price per pound of leading fats and oils,
United States, specified periods

Item	1953-1954					1954-55		
	Average:							
	1937-41:	Oct. :	Jan. :	Mar. :	Aug. :	Oct. :	Jan. :	Mar. :
	1953 :	1953 :	1954 :	1954 :	1954 :	1954 :	1955 :	1955 1/ :
	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.
Butter, 92-score, Chicago	29.6	67.4	65.3	64.5	57.0	59.1	57.4	57.0
Lard, tank carlots, Chicago	7.6	15.8	15.3	16.9	17.0	14.2	11.5	10.6
Cottonseed oil, crude, S. E. mills	7.0	13.5	12.3	13.2	14.3	12.8	13.0	13.0
Soybean oil, crude, tank cars:								
Midwest mills	6.4	13.3	12.1	13.3	14.8	12.1	12.1	11.5
Coconut oil, crude, tank cars:								
Pacific Coast 2/	7.0	19.2	19.3	16.4	15.3	15.7	15.5	15.0
Linseed oil, raw, tank cars, Minneapolis	9.3	16.0	14.8	14.5	16.0	14.5	12.3	12.3
Tung oil, tanks, New York	3/ 21.7	25.7	23.7	22.9	22.0	22.0	22.1	22.9
Inedible tallow, prime, Chicago	6.3	4.5	6.5	7.2	5.9	6.7	7.8	6.3

1/ Preliminary.

2/ Three cents added to allow for tax on first domestic processing.

3/ Drums, New York.

Compiled from Oil, Paint, and Drug Reporter; The National Provisioner; Wall Street Journal, Chicago edition; and reports of Commodity Stabilization Service.

Large Supplies of
Soybeans on hand;
1955 Crop Support Lowered

Peak supplies dominate the outlook for soybeans, the rest of the present crop year. The 1954 crop was about 15 percent more than the previous record of 1950 and crushings in October, 1954-February 1955 were comparatively small in relation to the size of the crop and the potential crush. Exports in the first 5 months of the 1954-55 crop year were ahead of any other year but not large enough to absorb all the extra supply. Based on supply and disappearance to date, about 175 million bushels of beans appear to be available for crushing and export in March-September and ending stocks, 13 percent more than the former high in 1950.

Farmers placed 41 million bushels of 1954 crop soybeans (12 percent of the crop) under support programs, of which 19 million were warehouse-stored loans. Under the provisions of the support program, unredeemed warehouse-stored beans are taken over by CCC at maturity. If the market price prevailing on the last day for redemptions (May 31) is higher than support plus storage charges and interest, producers will be paid the difference. Hence, it would be possible for the Corporation to acquire substantial quantities of beans even though prices are well above support. As of February 15, only 1 million bushels of warehouse-stored beans had been redeemed. However, it should be noted that few beans were acquired by CCC in recent years as prices were above support and farmers generally redeemed their loans. If CCC does acquire large quantities of beans this year, Government policy as to their disposition will have an important bearing on crushings, exports and prices in the latter part of the crop year.

Prospects for a larger soybean crop in 1955 probably will have a somewhat bearish influence on the market towards the end of the present crop year. Farmers indicated in March they would plant 7 percent more acres to beans than last year's record acreage. If yields should be average or higher, the crop would be well above last year's output. With the support price for the 1955 crop 18 cents per bushel less than for the present one, there is probably little incentive to carry over more than the minimum stocks of soybeans and soybean products.

In recent years most of the excess production of all edible vegetable oils has been acquired by CCC in the form of cottonseed oil. This crop year, compared with last year, cotton oil has moved readily into consumption and part of the possible excess could be in the form of soybeans or soybean oil. Considering only oil requirements, at present prices, a crush of 135-140 million bushels of soybeans in March-September 1955 (about 245 million for the entire crop year) would be sufficient. A crush no larger than this would leave about 60 percent more beans for export and stocks than in the peak period of March-September 1953. Prospects are that the crush may exceed 135-140 million bushels, which could exert downward pressure on oil prices.

The usual seasonal increase in soybean meal prices might be retarded if not prevented this spring and summer by the prospective large supply of soybean meal. If the crush of beans in March-September should be 145 million bushels, (250 million for the entire crop year) about 5 percent more soybean meal would be provided this spring and summer than the former peak in 1951. It would be about 25 percent more than last year's reduced quantity. This would still leave at least 30 million bushels of beans, well above the previous high in 1953, for export and stocks.

Soybean exports in October 1954-February 1955 totaled 36 million bushels (February is partly estimated), well above any previous year. Canada, Western Germany, Denmark, France and Israel already have taken more beans than in the entire 1953-54 crop year. Shipments to Japan are running ahead of a year ago. Exports for the 1954-55 crop year might go above 50 million bushels (compared with 40 million last year) depending on: 1. The effect of any weakening in bean prices this spring and summer on exports; 2. CCC policy on disposing of any beans that it acquires; and 3. The extent to which importing countries can wait for possibly lower priced 1955 crop beans.

The situation outlined above suggests that soybean prices this spring and summer are not likely to average as high as the \$2.54-\$2.61 per bushel received by farmers in October 1954-February 1955.

It was announced on March 16 that the 1955 soybean crop will be supported at \$2.04 per bushel, 70 percent of the February 15, 1955 parity price, compared with \$2.22 per bushel, 80 percent of parity, for the 1954 crop.

Table 4.- Soybeans, supply and disposition,
crop year beginning October 1

	: 1950-51	: 1951-52	: 1952-53	: 1953-54	: 1954-55
	: Mil. bu.	: Mil. bu.	: Mil. bu.	: Mil. bu.	: Mil. bu.
Total supply, Oct. 1	: 302.2	286.6	301.6	278.7	344.1
Less seed and feed 1/	: 18.2	21.5	25.2	24.7	27
Oct. - Feb.	:	:	:	:	:
Crushings	: 114.6	114.4	106.1	102.0	2/105
Exports	: <u>14.2</u>	<u>10.8</u>	<u>19.7</u>	<u>29.8</u>	<u>2/ 36</u>
Mar. 1, supply	: 155.2	139.9	150.6	122.2	176
Mar. - Sept.	:	:	:	:	:
Crushings	: 137.3	130.0	128.3	111.2	
Exports	: 13.6	6.3	12.2	9.7	
Ending stocks	: 4.2	3.6	10.1	1.3	
Oct. - Sept:	:	:	:	:	:
Crushings	: 252.0	244.3	234.4	213.2	
Exports	: 27.8	17.1	31.9	39.5	

1/ Includes residual. 2/ February is partly estimated.

Small Quantity of Cottonseed
Products Tendered to CCC;
Supports Reduced on 1955 Crop

Tenders of cottonseed products to CCC under the support program for 1954 crop cottonseed have been small. As of March 16, such tenders were as follows: oil, 115 million pounds; meal, 155 thousand tons; and linters, 103 thousand bales. These are equal to about 7 percent of the estimated crop year output compared with 17 percent a year earlier. The total market value of the products obtained from cottonseed in most areas has been higher than the value of the "package" of specified quantities of oil, meal and linters which CCC offers to buy at stated prices. Market prices for cottonseed meal until recently have been well above the CCC value while oil and linter prices have been around the CCC level. Market prices of the three products have weakened some in the past month or so and at present the total market value is near the CCC value.

The comparatively slow movement of soybeans to market has been an important factor in maintaining prices of cotton oil and meal. This increased the demand for cottonseed products.

A likely supply and disposition of cottonseed oil for the 1954-55 cottonseed marketing year is contained in table 5. The mid-point of the range of probable oil tenders is about 175 million pounds, equal to 10 percent of estimated oil production. Comparable data for the 1951-53 crops are as follows: 1951--136 million; 8 percent, 1952--874 million, 49 percent; and 1953--384 million, 19 percent.

Table 5.- Supply and disposition of 1954 crop cottonseed oil

Item	Unit	Actual Aug.-Jan.	Projected	
			Feb.-July	Aug.-July
Cottonseed crushed	: 1,000 tons :	3,332	1,868	5,200
Oil produced	: Mil. lb. :	1,077	648	1,725
Domestic use	: Mil. lb. :	945	1/510-570	1,455-1,515
Non CCC exports	: Mil. lb. :			2/50
Increase in Com. stocks	: Mil. lb. :			3/0- 25
Total commercial disposition	: Mil. lb. :			1,505-1,590
Production less disposition	: Mil. lb. :			220- 135
Tenders to CCC through mid-March	: Mil. lb. :			115
Still to be tendered	: Mil. lb. :			105- 20

1/ Monthly rate of 85-95 compared with 158 in the first 6 months. Only in February-July 1951 was monthly use substantially below 90, primarily because of the short crop. In 1953, when monthly domestic disappearance was slightly less than 90, half of the oil produced during the entire crop year was delivered to CCC. 2/ Exports not from CCC stocks. 3/ Commercial stocks at the beginning of the present crop year probably were at a minimum. Acreage allotments on the 1955 cotton crop are 15 percent below those for the present crop. Users may need some 1954 crop oil to tide them over the period before 1955 crop crushings begin in volume.

CCC has sold, mostly for export, over 80 percent of the oil which it acquired under these programs. Most of these sales have been made during the past year. As of mid-March, the Corporation held about 225 million pounds of oil which had not been sold or firmly committed for sale. A year earlier, CCC held about 890 million pounds.

It was announced March 16 that prices of 1955 crop cottonseed will be supported by loans on farm-stored cottonseed, available at \$46.00 per ton, basis grade (100), \$8.00 less than a year ago. The support reflects about 65 percent of parity compared with about 75 percent the year before. Purchases will be made from producers at \$42.00 per ton, basis grade (100) with appropriate differentials for purchases from ginners or oil mills to reflect normal handling and transportation costs. There will be no products purchase program (that is, no package buying of specified quantities of oil, meal and linters at stated prices) as there has been in recent years.

Import Quota on Peanuts Increased

The President announced on March 9 that the import quota for peanuts through the fiscal year ending June 30, 1955 has been raised from 2 million to 53 million pounds, shelled basis, in order to alleviate the shortage resulting from the small 1954 crop. The 1954 outturn was about a third less than in 1953, primarily because of drought. Usually, domestic production is more than sufficient to meet all needs at price support levels. Import quotas have been in effect in recent years to prevent material interference with the support programs. Peanuts are a basic commodity and support is mandatory. Shelled peanuts are subject to an import duty of 7 cents per pound. However, a fee of 2 cents has been imposed on the additional 51 million pounds that may be imported. As the supply of peanuts with large kernels appears to be sufficient, the additional quota has been limited to the smaller types--41 or more kernels to the ounce.

Reduced supplies have been reflected in a substantial rise in prices. Prices to farmers are up about 11 percent from last year and also above the support level of 90 percent of parity. Few peanuts have been placed under the support program. Last year, 269 million pounds of 1953 crop peanuts, 17 percent of the crop, were taken over by the Government.

Civilians have consumed about 6.5 pounds of peanuts (farmers' stock basis) per person in recent years at prices about reflecting support prices. Disappearance through January (the crop year began last September) was about the same as a year earlier. Disappearance the remainder of the crop year is likely to decline somewhat from a year earlier as stocks on hand February 1, 1955 were the smallest since 1939 and the deficiency is greater than the present import quota.

Probably the only peanuts being crushed are those which can't be used for other purposes. Only about 15 million pounds of peanut oil may be produced in 1954-55 compared with 84 million a year earlier. Ordinarily, there is no need to import peanut oil. However, because of the reduction in domestic output this year, imports may total 20-40 million pounds. Imports through January amounted to 9 million pounds. Peanut oil is subject to a 4 cent per pound import duty. Also, a 25 percent ad valorem fee is imposed on imports in excess of 80 million pounds.

Support Lowered on
1955 Crop Flaxseed

Farmers had placed 10 million bushels of 1954 crop flaxseed, equal to about 25 percent of the crop, under support programs by the January deadline. Little, if any, is likely to be redeemed as this quantity is about the same as the estimated crop year surplus. Commercial and farm use is expected to total about 32 million bushels (about 27 for oil and 5 for various farm uses) while production was 41.5 million. Commercial stocks (except CCC holdings) at the beginning of the present crop year were at a minimum and are not likely to be increased because of the lower support for the 1955 crop. Exports have been large, totaling 8 million bushels in July 1954-January 1955 but these have been from CCC stocks at prices well below support. CCC also toll crushed about 5 million bushels of seed this crop year. Prices of seed have been around support.

Flaxseed prices for the 1955 crop will be supported at \$2.91 per bushel, farm basis, down 23 cents from a year ago. In terms of parity, support is equal to 65 percent compared with 70 percent last year and 80 percent two years earlier. Based upon the March intentions report and assuming average growing conditions, the 1955 crop would be well in excess of probable domestic use. This would tend to depress prices towards the support.

Trade May Buy Tung
Oil from CCC

Commercial supplies of tung oil are expected to be moderately less than estimated use and the trade probably will purchase oil from CCC.

Production from the 1954 crop may be about 12 million pounds, compared with 39 million the year before, reflecting severe frost damage. Argentina and Paraguay, the major source of supply now that imports of Chinese tung oil are prohibited, have agreed to limit their exports entering the U. S. to a total of 24 million pounds during the year ending October 31, 1955. Imports from other sources may be about one million pounds. Commercial stocks on November 1, 1954 (the beginning of the present crop year) were at a minimum. Hence, total commercial supplies will be about 37 million pounds. If domestic use runs about 50 million pounds, as it has in the past three crop years, then users would have to buy about 13 million pounds from CCC. Because of strong European demand for Argentine tung oil, it is possible that U. S. imports will not reach the expected total. In this case, additional oil would be purchased from CCC. Imports in November 1954-January 1955 totaled 10 million pounds.

CCC is offering, weekly, limited quantities of tung oil for sale on a bid basis. So far, the Corporation has accepted bids for 200 thousand pounds. All other bids were rejected. Sales were made at prices slightly above the support level of 21.2 cents per pound, f.o.b. tankcars, at mills. In the last two months, prices at Southern mills have been about one cent above support. CCC owns about 38 million pounds of oil. About 33 million pounds were acquired from the 1953 crop--equal to over 80 percent of the output. (See page 19 for long term outlook for tung.)

Castor BeanProgram Discontinued

The Department of Agriculture announced March 2 that the castor bean production and procurement program, in effect for the 1951-54 crops, will not be continued this year. These programs were undertaken in order to meet castor oil requirements for the national strategic stockpile--now achieved.

Under the programs, farmers were guaranteed a specified minimum price for their beans. This was reduced from 10 cents per pound, hulled basis (for the first two crops) to 9 cents for the 1953 crop and 6 cents for the 1954 production. Domestic output was only a small part of total use and market prices were set by the imported beans and oil. Prices in this period trended downward. Prices of Brazilian castor beans, landed at New York, have been at or below the U. S. guaranteed minimum for the past year.

Domestic production of castor beans in 1954 totaled about 11 million pounds, hulled basis, far below last year and also less than in the two preceding years. The decline mainly reflects reduced plantings which in turn are attributed to the reduction in the minimum guaranteed price and other changes in the program.

NONFOOD USES OF FATS AND OILSSharp Drop in NonfoodUses in 1954; Trend MayContinue in 1955

Nonfood uses of fats and oils (excluding tall oil and rosin) continue to trend downward--sinking to 19.5 pounds per person in 1954. This is 1.4 pounds less than a year earlier and the least since the depths of the depression in the early 30's. The biggest drop was in soap fats and oils although drying oil usage also was down considerably. Other uses remained about the same. Reduced disappearance of soap mainly reflects increased competition from synthetics. Drying oils were adversely affected by competition from low-fat or nonfat products and by the general decline in industrial activity last year. Estimated production of paints, varnishes and lacquers declined slightly while use of fats and oils in these products was off substantially. Fats and oils probably will meet increasing competition from synthetics in 1955 but this may be offset, at least in part, by the recent upturn in the general level of economic activity.

Use of Synthetic DetergentsWell Above Soap in 1954

Domestic use of soap and synthetic detergents has been running around 24 pounds per person in recent years (based on estimates of production by the Association of American Soap and Glycerine Producers). However, synthetics continue to replace soap and in 1954 reached 14 pounds per person--60 percent of the total. Only a decade ago, synthetic usage was one pound per person. Soap consumption in the same period fell from 23 to 9 pounds (see table 9). These figures do not include liquid soaps or liquid detergents. The Association states that in 1954 its members sold about 119 million pounds of liquid detergents, up 25 percent from the year before.

Table 6.- Fats and oils: Use in nonfood products per person, 1931-54

Year	Soap	Drying oil products	Other	Total
	Pounds	Pounds	Pounds	Pounds
Average				
1931-35	12.1	4.7	2.5	19.2
1936-40	13.0	6.0	3.3	22.2
1941-45	15.1	6.8	5.1	26.9
1946	12.1	6.4	5.0	23.6
1947	15.4	6.7	5.2	27.3
1948	13.7	7.0	4.6	25.4
1949	11.7	6.1	4.9	22.7
1950	11.8	7.3	6.2	25.3
1951	9.7	6.8	6.5	23.0
1952	8.6	5.9	6.8	21.4
1953	8.1	6.1	6.7	20.9
1954 <u>1/</u>	7.1	5.6	6.7	19.5

1/ Preliminary.

These data do not include tall oil and rosin.

Reduced soap sales have been reflected in less use of fats and oils in these products. Use of saponifiable materials (fats, oils, tall oil and rosin) in soap totaled 1,264 million pounds in 1954, down 10 percent from the year before and the lowest since 1922 (table 10). Use of these materials in synthetic detergents totaled about 130 million pounds in 1953 (the latest year for which data are available), slightly lower than a year earlier but double that of 1949, the first year for which data are available. This Census category apparently includes some items which are surface active agents but which should not be classified as detergents since they do not possess cleaning ability. Surface active agents include, in addition to detergents, the emulsifiers, wetting agents, penetrants and dispersants. Most detergents are made from petroleum derivatives or coal tar products. When fat is used in a synthetic detergent it has about 3.5 times as much detergent power as the same fat would have if it were converted to soap.

Exports Account for Over 40 Percent of Tallow and Grease Disappearance

In most of the post World War II period production of inedible tallow and greases has been greater than total disappearance (domestic plus exports) and stocks increased while prices trended downward. (In fact, prices at times have been lower than prewar.) Exceptions were in 1950-51, reflecting the Korean situation, and in the past two calendar years.

In 1953 and 1954, the downturn in stocks and the increase in prices reflected record exports. Output was well above previous years. Exports were near 1.2 billion pounds annually, 55 percent more than in 1952 and more than double previous postwar highs. They comprised 44 percent of total disappearance of these fats compared with 33 percent in 1952 and 22 percent in 1949-51. Increased exports reflect the availability of large supplies at comparatively low prices (U. S. tallow and greases are among the lowest priced fats in world trade), limited supplies of competitive fats from other sources, and greater world demand resulting from the continuing economic recovery that has taken place in many foreign countries. Europe (about 650 million pounds) and Japan (about 200 million pounds) are the major outlets for these fats but sizeable quantities are going to Mexico, Egypt (about 45 million pounds each) and the Union of South Africa (about 60 million pounds). In 1937-46 the U. S. had a slight net import balance.

The postwar downturn in domestic use of tallow and grease continued through 1954. A sharp fall in utilization in soap more than offset greater consumption in other products. Use in soap totaled 907 million pounds, down 41 percent from the 1947 high and 6 percent less than the 1937-41 average. Tallow and grease have just about replaced all other oils used in soap except coconut oil ^{1/}, low priced foots and other secondary products. However, this has not counter-balanced the inroads in soap output (the major domestic outlet for tallow and greases) made by synthetic detergents. Inedible tallow and greases also are used in synthetic detergents, synthetic rubber, nylon, plastics and other products. In many of these products, these fats are consumed in the form of fatty acids obtained from fat splitting. Tallow and greases comprise a substantial percentage of the 125-150 million pounds of fats used in synthetic detergents.

During the past year or so, there has been considerable trade talk about expanding use of fats in feeds.^{2/} Based upon Census reports, use of tallow and greases in feeds in recent months has been at an annual rate of slightly over 100 million pounds. These data are preliminary, however, and are likely to be revised, probably upward, on the basis of additional reports to cover the calendar year. Some trade estimates place the total much higher. Data are not available for previous years.

OUTLOOK FOR DRYING OILS ^{2/}

Recent Trends in Drying Oils Utilization

Use of drying oils increased only about 25 percent in the last two decades while production of paints, varnishes, and lacquers has

^{1/} Coconut oil as a percentage of all saponifiable materials used in soap has dropped from 17 percent in 1935-39 to about 13 percent in recent years. ^{2/} This article was prepared by Sidney Gershben and Philp B. Dwoskin, AMS. It is based on a comprehensive research report on drying oils in industrial use conducted by Battelle Memorial Institute of Columbus, Ohio under contract with the U.S.D.A. The complete report is now being processed in the Department. Publication is expected in the next 3 or 4 months, and will be noted in a future issue of the "Fats and Oils Situation."

nearly doubled. The basic reason appears to be technological changes which resulted in increased use of non-oil or partly oil material instead of oils in the formulas for the various products. This shift is still in progress.

Paint technology has undergone considerable change in the last 15 years. During World War II, the Government, to conserve supplies, restricted the amount of drying oil that could be used per gallon of paint. After the war, paint companies found that a return to the pre-war ratio was not necessary.

The postwar period saw other changes in formulas which affected the consumption of drying oils. Probably the most significant have been: (a) The introduction and widespread use of rubber-base (instead of oil-base) paints. Sales of such paints increased from about 2 million gallons in 1949 to about 30 million in 1952, and 40 million gallons in 1954; (b) increasing use of synthetic materials in the manufacture of paint and non-paint products; ^{3/} (c) increasing use of tall oil and its derivatives in the manufacture of both paint and non-paint products. Drying oil uses of tall oil rose from 2 million pounds in 1943 to a peak of about 110 million in 1954; (d) the shift from oleoresinous to alkyd-type vehicles among the smaller paint companies, a shift which larger companies had completed before 1949. In general, this change has meant somewhat less drying oils used in a given quantity of paint, and also a switch from linseed to soybean oil.

Changes in formulas have resulted in the substitution of synthetic materials for drying oil and of soybean oil for linseed oil. The ratio of oil consumption to production of paint, varnish and lacquers declined from 2.2 pounds of oil per gallon in 1935-39 to about 1.3 pounds in recent years. However, the actual drop probably was less because the statistics do not include the oils used in synthetic resins in protective coatings. These are reported as used in resins by the Bureau of the Census. It is likely that the bulk of the oil (90-95 percent) consumed in synthetic resins as listed by the Census Bureau ends up in protective coatings, although there are no statistics available to support this belief. If the oils used in these resins are included in the totals for paints and varnishes, then the present ratio would be 1.4 to 1.5 pounds of oil per gallon rather than the 1.3. See table 13.

Reasons for Changes in Formulas. -- Most of the changes in formulas were made because they resulted in products which were of higher quality or possessed superior properties. Some of them were made because less expensive raw materials could be used to make equally good or better products.

^{3/} In the protective coatings field, this period saw the introduction of silicone alkyd resins, interior flat alkyd, epon-modified oils and alkyds, polyvinyl acetate resins, and styrenated alkyds. Acrylic resin emulsions came into prominence in 1953. Similar developments occurred in the other drying oil consuming industries--the increased use of vinyl resins in making floor coverings and of various synthetic resins in the manufacture of table and wall coverings, to cite only two examples.

Latex paints (rubber-base) became popular largely because of the ease of applying them and cleaning up afterwards and because of their relative lack of odor. The do-it-yourself trend in home maintenance helped increase demand for these paints. Effective promotion by the manufacturer was also important. Other synthetic materials, in many cases, "tailor-made" for specific uses, gave the end products properties that could not be achieved with drying oils--properties such as improved durability, better chemical or heat resistance, or faster drying time. More tall oil, as well as its derivatives, was used because it cost substantially less than vegetable drying oil and can be used with other oils in certain products. Production of alkyd resins continued to increase because they offered competition for latex paints, and because they could be made from soybean oil which is cheaper than linseed. Use of alkyd resins has resulted in a shift from linseed and tung oils to soybean, coconut, castor, and tall oil. The greater research into the development of the non-agricultural materials is a basic reason for the shift from drying oils. Also, much of the research that has been done on fats and oils has not been sufficiently publicized to be of maximum benefit to those interested.

Present Utilization Pattern of Drying Oils

Linseed oil continues to dominate the drying oils because of its adaptability to exterior house paint for wood. Linseed oil now comprises about 50 percent of all oils, including tall oil, in drying oil use compared with the average of 66 percent in 1935-39. However, there is general feeling in the industry that some other vehicle type may gain a considerable foothold in the wood house paint field in the next 5 to 10 years.

Soybean oil is most useful in alkyd resins because of its semi-drying nature, its color-retention properties, and its cheapness. Soybean oil ranks second among the drying oils--comprising about 20 percent of total use. Tung, oiticica, and dehydrated castor oil can be classed as minor drying oils. Their main advantages are rapid drying, color-retention, water resistance, and similar characteristics. Safflower oil, a newcomer to the drying oil field, is being used principally as a replacement for soybean or linseed oils in the production of alkyd resins and in other uses. Fish oil and tall oils are being used because of their cheapness, primarily in products of second or third-grade quality. Tall oil, in a relatively short time, has risen to a place of prominence in the drying oil field, now ranking third.

Outlook for Drying Oils Based on Continuation of Present Trends

The future for drying oils, based on present technology, is not promising. Unless an all out research effort is made, the following trends are likely in the future:

(1) The use of synthetic raw material in the manufacture of both protective coating and non-paint products will continue to increase at the expense of the drying oils. Since an expansion in total markets for most of these products is anticipated, the decline in drying oil consumption as a percentage of the total raw materials used is likely to be greater than the decline in the actual volume of oils consumed. New combinations of drying oils in synthetic raw materials, e.g., alkyd flat resins, will also tend to offset the decline in use of drying oil.

(2) Consumption of soybean oil and soybean oil fatty acids is likely to ~~increase~~ at the expense of linseed oil. However, this will depend on whether soybean oil is cheaper than linseed, as it has been in past years, and on the continued popularity of alkyd resins. The market for linseed oil may be reduced further within 10 years if an exterior house paint of a non-linseed type is developed.

(3) In protective coating products, average oil content will continue to decline in trade sales and industrial maintenance lines, but will remain relatively stable in industrial-product finishes. ^{4/} The net effect will be a decrease in the production of "exclusively oil" coatings accompanied by an increase in the production of both "part-oil" and "non-oil" coatings. Production of floor coverings will continue to increase, but most of the increase will be in the form of vinyl-base coverings and other types in which relatively little oil is used. Prospective production trends for other products in which drying oils are used do not appear to offer a significantly greater market for these oils. Interior flat oil finishes and floor coverings appear to be the two products in which drying oil, if improved, might hope to regain lost markets.

(4) A major decline in the price of drying oils as a group relative to tall oil probably would cause a displacement of tall oil in favor of the vegetable drying oils. In the absence of such a decline, consumption of tall oil and derivatives of tall oil seem likely to increase further, particularly if the quality continues to improve. A decline in drying oil prices would not materially improve their competitive

^{4/} The Bureau of Census differentiates between trade sales, industrial maintenance finishes, and industrial-product finishes sales on the basis of the end-use of the paint products sold. Trade sales usually refer to the over-the-counter type of sale to homeowners, etc. Industrial maintenance finishes are sales to industrial plants for maintenance purposes. Industrial-product finishes are all sales to industries using paint products in the processing of their finished products. Sales to the automotive, appliance, furniture industries, etc., fall into the industrial-product finishes category.

position with synthetic materials. The latter are already being used in large quantities, even though most of them are priced higher than the oils. However, a decline in oil prices would make the oil more attractive as raw materials in present and potential new uses. Lower oil prices also might lead to lower prices and increased consumption of the products made from them.

(5) Substitution of one oil for another is the exception rather than the rule in the industries that consume drying oils. In general, the properties of the various drying oils differ enough so that if the oil is changed a new formula must be adopted. Furthermore, specifications for industrial protective coatings and standards of producers of most products limit substitutions among the oils for slight economic advantages. Nevertheless, a majority of the companies interviewed indicated that they had alternate formulas for at least one product which would permit them to substitute one oil for another. This usually involved the drying oils used in minor quantities. For example, tung oil, oiticica oil, and dehydrated castor oil are considered interchangeable.

(6) Supplies of basic chemicals for making synthetic raw materials and the facilities necessary for processing them appear adequate for the foreseeable future. At the same time, there is no indication of any significant new technical developments in the synthetic field likely to provide further competition for the drying oils.

(7) Success appears to have been obtained on a laboratory scale in upgrading Southern pine to trim quality (competing with Western soft woods) by impregnating the lumber with drying oils. With this possible exception, no new uses for drying oils appear to be in the offing.

Outlook for Drying Oils Based on an Expanded Research Effort

In the past, research in drying oils has been concerned with substituting one drying oil for another or a synthetic material for an oil to obtain the specific property needed in a formula. The possibility of drying oils recapturing a large share of the markets they have lost to synthetic materials is remote. Potentially, however, these oils might serve as raw materials for making other film formers that would yield products with even better properties than those presently attainable only from synthetic materials. The fact that there has been no significant production from drying oils of a latex emulsion paint or a "steam-set" ink is not proof that such production is impossible.

The key to technological and developmental research for the drying oils appears to be the fundamental chemistry of the drying oils and their components. Despite extensive research and study, there are still gaps in the basic understanding of drying oils. Some of the questions that still need answering are:

(1) What is the fundamental cause of poor color-retention, poor water or chemical resistance, poor drying?

(2) What is the basic relationship between the composition of the oil and the particular properties that it exhibits?

(3) What is the basic mechanism by which drying oils dry?

(4) What are the fundamentals of adhesion?

Given the answers to these and similar fundamental questions, the drying oil industry would be in a better position to engage in developmental research.

In summary, fundamental research on the nature and chemical possibilities of the drying oils is the foundation on which their future utilization depends.

Outlook for Tung Nuts 1/

Sharp Rise in Domestic Output

Successful commercial culture of tung trees in the U. S. has been limited to a 100-mile-wide belt along the Gulf of Mexico from eastern Texas to northern Florida because of the exacting soil and climatic requirements for the trees. Expansion of the industry in this belt was encouraged by a large acreage of cut-over land available at low prices.

Production of tung nuts has increased rapidly from about 1,200 tons in 1939 to a peak of 132,000 tons in 1952. Frost damage severely reduced the 1954 crop to 40,000 tons. The upward trend in output reflects a sharp rise in the number of tung trees, more trees entering the productive period, the development of a better yielding and more frost resistant type of tree and improved management -- such as fertilization and better orchard practices.

Nonofficial estimates indicate that the present number of trees is around 16 million compared with 9.5 million in 1945. Not all of these have reached bearing age, so output is likely to continue upward.

1/ By Sidney Gershben and Philip B. Dwoskin, AMS.

Oil Most Important Product

Most of the value of the products obtained from the nuts comes from the oil, though the quantity of meal and hulls is greater. A survey of selected mills during the 1947 and 1948 crop years indicated the following yields, in pounds, per ton of seed crushed: oil, about 310; meal, about 375; hulls, about 1,050; and moisture and other loss, about 265. According to Census data the average oil yield in 1949-53 was 330 pounds per ton of seed crushed.

Hulls present a definite disposal problem to the mills. Although some may be burned as fuel, most are piled up outdoors and often burn in the piles, sometimes due to spontaneous combustion. Some are ground and may be used as a mulch, but so far, the market has been limited and their value too low to permit shipment over any great distance. Tung meal, which cannot be used as feed because of toxicity, is used primarily in fertilizer. During the 1947 and 1948 crop years, the meal was worth about a cent per pound compared with 3 to 4 cents per pound for cottonseed meal (41 percent protein, bagged, Memphis). Since then, the value of tung meal has declined. It has sold for less than half a cent a pound, probably not enough to pay freight costs to haul it to Florida where its major market has been in the Citrus Belt. Prices this year probably are much higher because of the comparatively short crop.

Tung is a quick drying oil mainly used in paints and varnishes. Small quantities also are consumed in felt-based floor covering, oilcloths, printing inks and other drying oil products.

Shifts in Demand for Oil

Figure 1 suggests that two pronounced shifts in the demand for tung oil have taken place in the last 30 years. This chart indicates the relationship between prices of tung and other drying oils and use of tung oil as a percentage of all oils that are utilized in drying oil products.

Demand for tung oil increased during the mid-30's. One reason may have been the increased mechanization of industrial processes which took place at that time. This required quick drying oils and complete control of quality, for example, in baking finishes for use on automobiles as they pass along an assembly line. Tung combined with resins (phenolic tung finishes) met this need. (Linseed does not dry as quickly as does tung.) Lacquers, which had been used previously, actually dry faster than tung finishes but did not permit the desired degree of quality control. Also, compared with lacquer, fewer coats of tung finishes were required. Another factor that may have been significant was the development of wrinkle finishes for coating metals. This gave an attractive appearance without the necessity of a highly finished metal surface. This finish was developed and was very popular for some time, but its use has been decreasing due to development of molded plastics which are replacing many items that were formerly made of metal. An illustration of the increased demand for

tung can be obtained by comparing 1929 and 1939. Not only did tung comprise a slightly greater percentage of all oils used in drying oil products in 1939 than 1929 but the price for tung was much higher.

As indicated in figure 1, a sharp decline in the competitive position of tung oil has taken place since the prewar period. For example, in 1951 tung comprised a slightly smaller percentage of total drying oil usage compared with 1941, although the 1951 prices for tung were much lower in relation to other oils. Tung has dropped from a place of prominence among drying oils (ranking next to linseed prewar) and at present is a relatively minor oil. In 1954, tung totaled only 5 percent of all oils used in drying oil products, much less than half the level of the 30's. The decline reflects increased substitution of other oils or synthetic materials brought about by instability in supply, relatively high and unstable prices and technological changes which enabled competing materials to impart equal or superior properties to a given coating at equal or less cost. Modified oils, such as maleic soybean, and dehydrated castor, fractionated oils and synthetic materials, such as maleic anhydride, alkyd resins and copolymer resins, have replaced tung in various uses. For example, the availability of certain types of alcohols, such as pentaerythritol, have made possible the production of faster drying alkyds having harder films from drying oils less reactive than tung.

Historically, the United States has relied upon imports to meet its domestic requirements. In the 1930's domestic use totaled over 100 million pounds annually--nearly all of which came from China. Japanese conquests in the Pacific cut off this source of supply and domestic consumption fell to a negligible quantity. What oil was available was reserved for military products. Wartime prices, at ceilings, were more than double the prewar average. By this time, castor oil had been successfully converted into a drying oil by dehydration and became a major competitor of tung.

After the war, when large supplies of Chinese tung oil again became available and imports from South America, mostly Argentina, were increasing, U. S. consumption rose sharply. In 1947-50, it was near the prewar level of over 100 million pounds annually. Tung oil prices in this period were well below the wartime level but substantially above prewar. In relation to prices of other drying oils, they were down sharply. In fact, in 1947 and 1948, prices for tung oil were less than those for linseed. (See table 14.) After 1950, supplies of Chinese tung oil were no longer available to us because of restrictions imposed by the U. S. and the Chinese Communist Government. Domestic use dropped sharply, totaling about 50 million pounds in each of the last three years compared with 109 million in 1950. Prices increased greatly after the embargo but have since dropped just as much.

Consumption of tung oil in 1953 and 1954 was much less than would have been expected based on existing prices (the data for these years are well below the line in figure 1). This may indicate a further downward shift in demand. However, manufacturers may have been reluctant to make formula changes in order to take advantage of lower prices for tung because of the uncertainty of future supplies and prices.

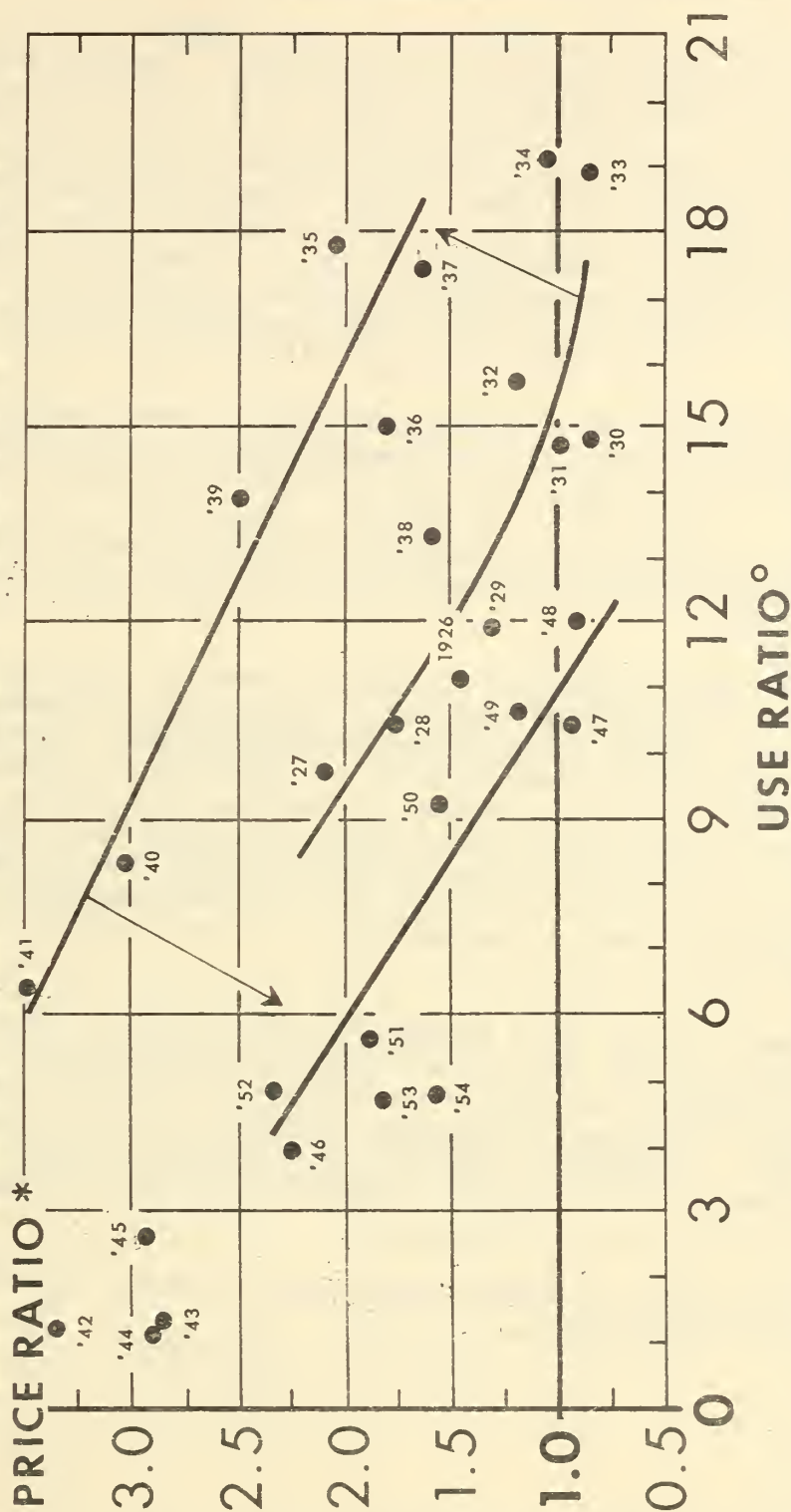
Table 7.- Tung oil prices and use in relation to other drying oils

Year	Tung oil, domestic use	All oils: used in: drying oil products	Index of prices (1947-49 = 100) Tung oil: 1/ 2/	Ratio of tung to other dry- ing oil prices	Tung oil use as a percentage of all oils used in drying oil products
	Million pounds	Million pounds			Percent
1926	92	830	54	37	1.5
1927	85	872	73	35	2.1
1928	95	914	58	33	1.8
1929	110	926	55	42	1.3
1930	100	674	36	43	0.8
1931	91	619	28	28	1.0
1932	75	479	24	20	1.2
1933	104	550	26	31	0.8
1934	115	601	34	33	1.0
1935	128	721	65	32	2.0
1936	119	793	61	34	1.8
1937	148	852	60	37	1.6
1938	90	682	51	32	1.6
1939	106	822	80	32	2.5
1940	67	807	100	33	3.0
1941	69	1,079	122	35	3.5
1942	12	973	150	45	3.3
1943	12	890	148	52	2.8
1944	10	917	148	51	2.9
1945	23	874	149	51	2.9
1946	36	934	149	66	2.3
1947	106	1,017	116	122	1.0
1948	130	1,081	93	101	0.9
1949	103	974	91	77	1.2
1950	109	1,183	101	65	1.6
1951	61	1,151	152	81	1.9
1952	51	1,032	153	66	2.3
1953	51	1,087	111	61	1.8
1954	50	1,041	91	58	1.6

1/ Each price was divided by the 1947-49 average price and the result multiplied by 100.

2/ Beginning in 1947 includes linseed, soybean and castor. Because of its overwhelming weight (97%) and for ease in computation, only linseed was used prior to 1947. The two series were linked on the basis of January 1947.

TUNG OIL PRICES AND USE IN RELATION TO OTHER DRYING OILS



* INDEX (1947-49 BASE) OF TUNG OIL PRICES DIVIDED BY PRICE INDEX OF OTHER DRYING OILS
 ° TUNG OIL USAGE AS A PERCENTAGE OF ALL OILS USED IN DRYING OIL PRODUCTS

U. S. DEPARTMENT OF AGRICULTURE

NEG. 1414-55 (3) AGRICULTURAL MARKETING SERVICE

The relationship between relative prices and relative use of tung oil has changed greatly the last 3 decades. This is shown by the shift of the "demand" curve, first to the right and later to the left. In the late 1930's and up to World War II, tung usage was large for

a given ratio of tung to other oil prices. Since the war, it has been much less. For example, in 1951 tung was only 6 percent of all oils used, slightly less than in 1941, even though the price ratio to other drying oils was down almost a half from the earlier year.

Need Research
on Tung

The outlook for tung nuts is to a large extent dependent upon research on all its products--oil, meal, hulls--and upon the attainment of stability in supplies and prices of tung oil at a competitive level.

The development of an economical method of detoxifying the meal would greatly increase its value by permitting its use as an animal feed. However, the outlook is not clear. More information about the nature of the toxic materials is needed before it can be determined whether or not this detoxification is economically possible. The USDA is at present conducting research along this line. Other profitable outlets also might be developed.

Tung oil will meet increasing competition from synthetics unless its properties are improved. For example, there is the problem of the gelation of tung oil varnishes during production and while in storage.

Tung is well suited to chemical modification and research might develop new products possessing properties that cannot easily be obtained with other oils.

Supply-price conditions in the past have to a considerable degree reflected the fact that most tung oil was imported. In recent years, a new factor has entered the picture--Government support prices (nearly 85 percent of the 1953 crop was acquired by the CCC as a support operation) and action to limit imports because of possible interference with the program. Domestic output of tung has expanded sharply and in most years is expected to be sufficient to meet usage at present comparatively low consumption levels. Imports during the 1954-55 crop year have been restricted by an agreement between the United States and the Argentine and Paraguayan Governments. 2/

Support at some level between 60 and 90 percent of parity is mandatory for tung nuts but only discretionary for flaxseed and soybeans. Tall oil is not supported and castor oil is imported without restrictions. The present support for tung, 60 percent of parity, is at the lower limit permitted by law. Supports on 1955 crop flaxseed and soybeans have been lowered. Tables 7 , 17 and 18 contain various data on tung.

2/ The Department's request to limit imports during 1953-54 was rejected by the Tariff Commission.

Table 8.- Inedible tallow and greases: Apparent production, disposition and price

Period	Apparent production:				In soap				In fat				In splitting				In other products:				Total				Net		Stocks, end of period:		Price per pound, prime, inedible tallow, Chicago
	: production :		: In :		: soap :		: In fat :		: splitting :		: In other :		: products :		: Total :		: imports (+) :		: or net :		: exports (-) :		: Mil.lb. :		: Mil.lb. :				
	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Cents			
Average																													
1937-41	1,167	965	N.A.	193	1,158																					6.28			
1942-46	1,749	1,398	2/247	3/165	1,810																					9.24			
1947	2,023	1,526	193	163	1,882																					19.2			
1948	1,940	1,451	185	145	1,782																					16.0			
1949	2,132	1,346	169	151	1,666																					6.4			
1950	2,272	1,363	229	215	1,807																					8.8			
1951	2,254	1,195	243	225	1,663																					12.1			
1952	2,318	1,084	187	270	1,541																					5.5			
1953																													
January-March	669	277	58	70	405																					4.3			
April-June	695	248	64	83	394																					3.9			
July-September	646	216	63	68	346																					4.0			
October-December	681	286	67	70	423																					5.3			
Year	2,690	1,026	252	290	1,568																					4.4			
1954																													
January-March	662	260	68	69	397																					7.0			
April-June	614	219	58	83	360																					6.6			
July-September	659	202	53	95	350																					5.9			
October-December	686	226	63	106	395																					7.0			
Year	2,621	907	242	352	1,501																					6.6			
1955																													
January-March																										7.3			

N.A. - Not available.

1/ Beginning in 1949, soap manufacturers were not required to report the consumption of fats and oils in fat-splitting when such splitting was merely the first step in the production of soap, the resultant production of fatty acids nor the subsequent consumption of fatty acids in soap. Instead, the reported consumption of fats and oils in soap included both the fats and oils used directly and those used in fat splitting if the fatty acids were used in soap. 2/ 1943-46 average. 3/ Residual.

Totals computed from unrounded data.

Table 9.- Soap and synthetic detergents: Supply and disposition, 1935 to date

Year	Estimated production 1/		Imports		Exports and: Use of		Disappearance		Civilian per capita	
	: Mil.lb.	: Mil.lb.	: of	: soap	: Total supply	: of soap 4/	: to U. S. territories: rubber 5/	: Military: excluding relief 6/	: Total	: Per capita
	: Soap 2/	: Synthetic detergents: 3/								
	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Mil.lb.	: Lb.	: Lb.
1935	2,800	2	22		2,824	60	---	---	2,764	21
1936	3,064	5	4		3,073	65	---	---	3,008	23
1937	2,976	10	4		2,990	68	---	---	2,922	22
1938	3,148	15	3		3,166	60	---	---	3,106	24
1939	3,336	18	3		3,357	75	---	---	3,282	25
1940	3,231	30	5		3,266	67	---	---	3,199	24
1941	3,832	40	11		3,883	84	1	55	3,743	28
1942	3,615	50	4		3,669	59	2	120	3,488	26
1943	3,507	75	8		3,590	59	22	350	3,159	24
1944	4,120	125	1		4,246	52	89	400	3,705	28
1945	3,662	150	3		3,815	129	94	400	3,192	24
1946	3,024	275	8		3,307	157	72	15	3,063	22
1947	3,637	400	1		4,038	138	47	40	3,813	26
1948	3,192	550	1		3,743	92	50	37	3,564	24
1949	3,004	815	1		3,820	80	46	40	3,654	24
1950	2,992	1,249	1		4,242	76	59	40	4,067	27
1951	2,488	1,434	1		3,923	69	104	80	3,670	24
1952	2,247	1,749	1		3,997	65	88	90	3,754	24
1953	1,984	2,134	1		4,119	63	94	90	3,872	24
1954 8/	1,740	2,225	1		3,966	59	68	80	3,759	23

1/ Based on estimates of the Association of American Soap and Glycerine Producers, Incorporated. Excludes cleansers and liquid soaps. Data for 1948-53 based on shipment-production relations in 1947, the last year for which data from the Census of Manufacturers are available. 2/ Based on factory shipments of 53 companies as reported in the Association's Sales Census who produced 79 to 83 percent of the United States total in census years, adjusted to a U. S. total basis. 3/ Includes only those with characteristics and end uses similar to soap. 4/ Beginning 1947 includes shipments in CARE packages. 5/ From Office of Rubber Reserve, Reconstruction Finance Corporation. 6/ Estimates based in part on data given in Statistical Yearbook of the Quartermaster Corps for 1947. 7/ Less than one-half pound. 8/ Preliminary.

Table 10.- Soap: Fats, oils, tall oil and rosin used in manufacture, United States, 1937-54 1/

Item	Average: 1937-41		1942		1943		1944		1945		1946		1947		1948		1949		1950		1951		1952		1953		1954	
	Mil.	lb.	Mil.	lb.	Mil.	lb.	Mil.	lb.	Mil.	lb.	Mil.	lb.	Mil.	lb.	Mil.	lb.	Mil.	lb.	Mil.	lb.	Mil.	lb.	Mil.	lb.	Mil.	lb.	Mil.	lb.
Hard oils (Tallow class):																												
Slow lathering:																												
Tallow, inedible and greases	965	1,528	1,360	1,530	1,364	1,210	1,526	1,451	1,346	4/1,363	1,195	1,084	1,026	907														
Whale and fish oils 3/	137	72	45	51	114	40	43	35	4/10	1	---	---	5/	---														
Palm oil	110	56	33	20	24	7	1	1	1	3	3	3	4	9														
Beef fats	2	1	7	47	36	10	7	2	3	1	5/	---	---	---														
Lard 6/	5/	5/	88	183	82	1	6	4	---	36	22	---	---	---														
Total	1,214	1,657	1,533	1,831	1,621	1,267	1,583	1,493	1,361	1,404	1,220	1,087	1,029	916														
Quick lathering																												
Coconut oil	373	140	142	132	59	185	511	417	282	257	197	204	175	173														
Palm-kernel oil	30	1	2	4	32	19	7/	3	5/	7/	---	7/	23	6														
Babassu oil	26	19	26	13	32	36	15	19	24	29	19	5	7/	---														
Total	428	161	170	147	122	240	526	439	306	286	216	209	198	179														
Soft oils:																												
Secondary fats and oils 8/																												
Olive oil, foots and inedible	190	190	270	303	364	335	227	181	156	174	149	137	128	135														
Soybean oil	17	5	5	3	2	1	1	4	5	4	5	4	3	1														
Cottonseed oil	15	32	15	3	4	4	5	3	2	2	2	2	1	1														
Corn oil	4	3	1	1	2	1	1	1	5/	1	7/	5/	5/	5/														
Castor oil	4	4	1	1	1	5/	5/	5/	5/	5/	5/	5/	5/	5/														
Peanut oil	2	2	1	17	1	1	1	1	1	1	1	1	1	1														
Other soft oils 9/	1	5/	5/	1	1	7	5/	5/	5/	5/	---	---	---	---														
Total	9	7	4	2	---	2	1	5/	1	1	2	1	2	5/														
Total fats and oils																												
Rosin	241	242	297	333	377	351	237	190	166	183	159	145	141	138														
Tall oil	1,883	2,061	1,999	2,311	2,121	1,857	2,346	2,122	1,833	1,873	1,595	1,440	1,369	1,234														
Total saponifiable materials:	99	99	120	193	122	75	80	53	40	43	38	30	20	4/20														
Total	---	---	11	29	30	25	16	18	14	13	22	15	14	11														
Total saponifiable materials:	1,981	2,160	2,130	2,534	2,273	1,957	2,443	2,193	1,887	1,929	1,654	1,485	1,403	1,264														

1/ Prior to 1949, most of the fats and oils used in synthetic detergents are believed to have been reported as used in soap. Beginning in 1949, this use of fats and oils is entirely included in "Other inedible products" and thus is excluded from the figures shown in this table. 2/ Preliminary. 3/ Includes whale, herring, sardine, manhaden and other fish oils. 4/ Partly estimated. 5/ Less than 500,000 pounds. 6/ Beginning 1941, includes rendered pork fat. 7/ Not reported by Census. Included in other vegetable oils. 8/ Includes inedible animal stearine, grease (lard) oil, tallow oil, foots and other soap stock, red oil, stearic acid, and other fatty acids. Prior to 1943, estimated largely on the basis of reported total factory consumption of secondary fats and oils and derivatives, 1943-June 1947, total factory consumption of these items after subtracting estimated use of tall oil. Tall oil is reported by Census beginning July 1947. 9/ Includes "Other vegetable oils" as reported by Census and edible olive oil, neat's-foot oil, linseed oil, perilla oil, sesame oil and tung oil.

Compiled from reports of the Bureau of the Census, and Agricultural Marketing Service. Totals computed from unrounded numbers.

Table 11.- Fats and oils used in all drying oil products, by kind of oil, 1925-54

Date	Linseed oil	Soybean oil	Tung oil	Fish oil	Castor oil	Oiticica oil	Perilla oil	Other primary fats and oils	Secondary fatty materials	Tall oil	Total
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
Average											
1925-29	752	4	94	20	2	---	5	---	---	---	877
1930-34	433	12	97	22	2	---	17	3	---	---	585
1935-39	514	22	118	39	7	6	63	6	---	---	774
1940	585	46	67	47	25	15	20	4	---	---	807
1941	807	62	69	57	46	27	9	3	---	---	1,079
1942	819	33	12	32	63	9	3	3	---	---	973
1943	757	39	12	36	22	4	2	1	15	2	890
1944	688	37	10	47	90	11	1/	1/	27	7	917
1945	627	46	23	58	60	19	1/	3	32	7	874
1946	663	67	36	48	35	25	1/	8	39	15	934
1947	567	159	106	47	44	13	1/	6	44	32	1,017
1948	595	162	130	40	53	13	1/	7	46	36	1,081
1949	428	220	103	26	51	12	---	8	73	53	974
1950	590	213	109	33	66	12	---	24	76	70	1,193
1951	665	194	65	28	38	12	---	8	57	84	1,151
1952	536	209	51	36	41	11	---	11	50	87	1,032
1953	536	242	51	34	39	10	---	13	69	94	1,087
1954 2/	493	221	50	28	38	8	---	16	75	111	1,041

1/ Less than 500,000 pounds. 2/ Preliminary.

Compiled from reports of Bureau of the Census and Fish and Wildlife Service. Partly estimated by AMS. Totals computed from unrounded numbers.

Table 12.- Utilization of oils, fats and tall oil in drying-oil products, by type of product, United States, 1931-54

Year	Paint and varnish 1/	Floor coverings and oilcloth	Resins 1/ 2/	Other	Total
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
Average					
1931-34	474	67	---	22	562
1935-39	641	95	---	38	774
1940	652	112	---	43	807
1941	875	137	---	68	1,079
1942	775	116	---	82	973
1943	700	76	---	114	890
1944	694	85	---	138	917
1945	644	79	---	151	874
1946	683	88	---	162	934
1947	706	142	---	169	1,017
1948	766	167	---	149	1,081
1949	655(731)	148	82(6)	87	974
1950	776(874)	153	105(7)	157	1,193
1951	743(888)	134	156(11)	118	1,151
1952	691(810)	125	128(9)	87	1,032
1953	750(869)	117	128(9)	93	1,087
1954 3/	686(809)	112	132(9)	111	1,041

1/ About 90-95 percent of the oil listed by Census as used in synthetic resins end up in protective coatings. Data in brackets are new totals obtained by shifting these resins to paints and varnishes. 2/ Not available prior to 1949. 3/ Preliminary.

Totals computed from unrounded numbers.

Table 13- Fats and oils used per gallon of paints, varnishes and lacquers, 1931-54

Period	Use of fats and oils in paints and varnishes <u>1/</u> <u>2/</u>	All paints, varnishes and lacquers		Only paints and varnishes containing oil	
		Production	Oil used per gallon <u>2/</u>	Production	Oil used per gallon <u>2/</u>
	Million pounds	Million gallons	Pounds	Million gallons	Pounds
1931-34	474	201	2.4	140	3.4
1935-39	641	298	2.2	208	3.1
1940	652	324	2.0	231	2.8
1941	875	428	2.0	303	2.9
1942	775	395	2.0	291	2.7
1943	698	423	1.7	313	2.2
1944	687	464	1.5	349	2.0
1945	637	481	1.3	358	1.8
1946	672	570	1.2	413	1.6
1947	693	545	1.3	399	1.7
1948	744	549	1.4	396	1.9
1949	637 (710)	485	1.3 (1.5)	349	1.8 (2.0)
1950	756 (845)	599	1.3 (1.4)	432	1.8 (2.0)
1951	710 (845)	542	1.3 (1.6)	389	1.8 (2.2)
1952	659 (765)	536	1.2 (1.4)	374	1.8 (2.0)
1953	716 (825)	556	1.3 (1.5)	381	1.9 (2.2)
1954 <u>3/</u>	653 (765)	545	1.2 (1.4)	375	1.7 (2.0)

1/ Excludes tall oil.2/ Data in brackets include estimate for oils reported by census as used in synthetic resins but which are ultimately consumed in paints and varnishes, not available prior to 1949.3/ Preliminary.

Production of paints, varnishes and lacquers are estimates of the Stanford Research Institute or Battelle Memorial Institute.

Table 14.- Wholesale price per pound of selected oils 1/

Year and month	Linseed oil, tankcars, Minneapolis	Tung oil, tankcars, New York	Soybean oil, crude tankcars, Midwest mills	Coconut oil, crude tankcars, Pacific Coast <u>2/</u>	Tall oil, refined, tanks, works
	Cents	Cents	Cents	Cents	Cents
Average					
1937-41	9.3	<u>3/</u> 21.7	6.3	7.0	<u>4/</u> 4.2
1949	22.7	22.4	11.0	17.4	5.4
1950	18.6	25.5	14.0	18.4	5.1
1951	18.9	38.4	16.8	18.5	5.8
1952	15.9	38.8	11.0	13.6	5.2
1953					
Jan.-Mar.	14.8	30.2	12.9	20.5	5.0
Apr.-June	14.9	28.7	12.5	18.7	5.0
July-Sept.	14.5	27.6	10.9	17.4	5.0
Oct.-Dec.	15.8	24.3	13.2	19.4	5.0
1954					
Jan.-Mar.	14.4	23.5	12.6	17.9	5.0
Apr.-June	14.5	22.5	14.1	16.3	5.0
July-Sept.	15.7	22.0	14.1	15.3	5.0
Oct.-Dec.	13.5	21.5	12.3	15.5	5.0
1955					
Jan.-Mar.	12.4	22.6	12.0	15.5	5.0

1/ For prices of inedible tallow see table 8. 2/ Three-cent processing tax added to prices as originally quoted. 3/ Drums, New York. 4/ Not reported prior to April 1938.

Table 15.- Supply and disposition of flaxseed and linseed oil, 1927-54

Year	Pro- duction	Stocks July 1	Imports	Total supply	Exports	Domestic disap- pearance	Crushings
Beginning July 1							
	Mil.bu.	Mil.bu.	Mil.bu.	Mil.bu.	Mil.bu.	Mil.bu.	Mil.bu.
Flaxseed							
Average							
1927-31	18.7	4.1	16.6	39.4	---	35.9	33.8
1932-36	8.9	2.6	16.2	27.7	---	25.0	23.6
1937-41	19.6	3.8	16.9	40.2	1/	35.8	33.9
1942-46	34.0	6.5	6.6	47.0	1/	41.4	37.1
1947	40.6	1.7	.7	43.0	1/	35.8	30.1
1948	54.8	7.2	.6	62.6	4.7	38.6	37.3
1949	43.0	19.4	1/	62.3	2.0	43.4	37.4
1950	40.2	17.0	1/	57.2	2.9	42.0	42.3
1951	34.7	12.3	1/	47.0	4.2	31.3	30.3
1952	30.2	11.5	1/	41.7	.2	31.5	25.2
1953	36.7	10.0	1/	46.7	2.4	30.4	27.5
1954	2/41.5	13.9					
July-Dec. 53	36.7	10.0	1/	46.7	1/	12.0	13.7
July-Dec. 54	41.5	13.9	0	55.4	7.3	16.7	19.5
Linseed oil							
	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	
Average							
1927-31	625	131	3	759	2	633	
1932-36	452	116	3	570	1	449	
1937-41	656	141	3/	797	11	629	
1942-46	721	206	86	1,012	4/123	699	
1947	595	144	14	753	4/42	573	
1948	737	138	2	877	14	482	
1949	728	381	3/	1,110	5	517	
1950	844	588	3/	1,433	26	728	
1951	609	679	3/	1,288	28	585	
1952	507	675	3/	1,182	3	559	
1953	551	619	0	1,170	302	5/522	
1954		5/345					
July-Dec. 53	280	619	0	899	90	5/282	
July-Dec. 54	381	5/345	0	726	229	5/275	

1/ Less than 50,000 bushels. 2/ Indicated December 1, 1954. 3/ Less than 500,000 pounds. 4/ In 1945 and 1947 some linseed oil was imported by the Government for reshipment under Lend-Lease. As no duty was required, this was included by Census with the imports for consumption, but when this oil was shipped out it was reported by Census as re-exports. These re-exports have been added to exports to offset their inclusion in the imports for consumption data. 5/ Disappearance is partly estimated and stocks have been adjusted. Reported stocks on July 1, 1954 were 361 million pounds.

Compiled from reports of the United States Department of Agriculture, Bureau of the Census and from Foreign Commerce and Navigation of the United States.

Table 16.- Tall oil: Production, stocks, exports, domestic disappearance and utilization by classes of products 1941-54

Year and quarter	Utilization													
	Produc- tion	Begin- ning stocks	Ex- ports	Domestic disap- pearance	Soap	Drying oil products						Nonfood uses other	Foots- and loss	
						Paint and varnish	Linoleum and oilcloth	Resins	Other					
Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.		
1941	50	NA	8	41	---	---	---	---	---	---	---	---	---	
1942	73	NA	16	57	---	---	---	---	---	---	---	---	---	
1943	125	NA	6	119	11	2	NA	---	---	106	---	106	NA	
1944	158	NA	5	154	29	7	1/2	---	---	108	---	108	9	
1945	195	NA	5	190	30	7	2/4	---	---	145	---	145	9	
1946	202	NA	6	196	25	11	---	---	---	147	---	147	15	
1947	200	NA	23	177	16	13	19	---	---	113	---	113	33	
1948	249	41	28	214	18	22	14	---	---	127	---	127	27	
1949	230	48	33	186	14	18	16	6	12	92	---	---	---	
1950	310	59	36	287	13	20	16	8	26	172	---	---	32	
1951	398	46	44	323	22	34	15	11	24	191	---	---	26	
1952	313	77	35	270	15	32	13	15	27	160	---	---	8	
1953	318	85	42	280	14	34	17	11	31	165	---	---	7	
1954	357	81	61	331	11	34	29	12	36	196	---	---	13	
1955		46												

1/ Included in "other products".

2/ Less than 500,000 pounds.

NA Not available.

Compiled from reports of the U.S.D.A. and Bureau of the Census.
 Totals computed from unrounded numbers.

Table 17.- Tung nuts: Supply, disposition and price, 1939-54

Year beginning November	Supply			Disposition		Price		Oil yield per ton crushed
	Pro- duction	Imports	Total	Crush- ings	Resid- ual	Season average	Support	
	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	Dol.	Dol.	Lb.
1939	1.2	---	1.2	(1.2)	---	42.20		
1940	11.0	---	11.0	(11.0)	---	60.00		
1941	8.7	---	8.7	(8.7)	---	88.30		
1942	16.4	---	16.4	16.4	---	91.80		316
1943	6.2	---	6.2	5.5	.7	99.00		341
1944	26.7	---	26.7	27.3	-.6	102.00	100.00	321
1945	37.1	---	37.1	27.5	9.6	98.90	101.25	332
1946	57.4	---	57.4	45.1	12.3	96.90	---	319
1947	53.2	---	53.2	50.6	2.6	64.90	72.00	316
1948	58.5	2.7	61.2	50.3	10.9	49.10	---	339
1949	87.9	.3	88.2	83.1	5.1	63.70	60.00	322
1950	36.5	---	36.5	35.8	.7	111.00	63.00	343
1951	49.1	.1	49.2	48.5	.7	106.00	67.20	303
1952	132.1	.5	132.6	129.5	3.1	79.80	67.20	335
1953	120.0	---	120.0	112.5	7.5	66.80	63.38	350
1954	40.2	---				57.60	54.96	

Compiled from reports of the Bureau of the Census and U. S. Department of Agriculture.

Table 18.- Tung oil: Supply, disposition and price, calendar year average 1935-39 and year beginning November 1942-54 1/

Period	Supply				Disposition		Price			Oil acquired by CCC
	Begin- ning stocks	Pro- duction	Imports	Total	Exports 2/	Domestic disap- pearance	Drums, N.Y. (im- ported)	Tanks, f.o.b. mills 3/	Support	
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Ct.	Ct.	Ct.	Mil. lb.
Average 1935-39	37.9	.6	123.2	161.7	5.7	118.1	18.2			
Year beginning November										
1942	31.4	5.2	4/	36.7	1.8	5/11.5	39.0			
1943	28.7	1.9	1.8	32.3	.7	5/10.5	39.0			
1944	22.8	8.8	.3	31.9	2.5	21.7	39.2		36.0	---
1945	7.7	9.1	24.5	41.3	.9	33.2	39.2		6/36.0	---
1946	7.2	14.4	103.4	125.0	6.0	87.1	32.4		---	---
1947	31.9	16.0	140.4	188.4	10.4	130.4	25.2		25.0	7.8
1948	47.6	17.0	72.4	137.0	10.9	107.7	23.4		---	---
1949	18.5	26.8	105.9	151.1	8.2	112.5	26.5	25.1	24.1	1.6
1950	30.5	12.3	48.2	91.0	6.4	5/72.4	38.2	36.7	25.1	---
1951	16.0	14.7	30.4	61.2	1.3	51.2	40.8	39.1	26.5	---
1952	8.7	43.4	13.0	65.1	.4	49.6	31.3	28.6	26.5	5.8
1953 7/	15.1	39.4	41.5	96.0	.3	49.0	24.3	23.8	23.9	33.1
1954	46.7								21.2	

1/ Data by crop year not available until 1942-43. 2/ Includes reexports. 3/ Not available before April 1949. 4/ Less than 500,000 pounds. 5/ Factory consumption figures used for years in which reported factory consumption exceeds domestic disappearance. 6/ Processor had to agree to buy back oil at 37 cents a pound or else CCC would purchase oil only at 30 cents a pound. 7/ Preliminary.

Table 19.- Fats, oils, including margarine and shortening, and tall oil: Production from domestic and imported materials, and factory and warehouse stocks at end of month

Items grouped by major use	Production 1/				Stocks			
	Average	1952	1953	1954	December 31			
	1937-41	1952	1953	1954	1951	1952	1953	1954
	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.
PRIMARY FATS AND OILS								
Food fats and oils								
Butter 2/.....	1,780.2	1,188.2	1,411.8	1,449.2	27.1	72.7	281.7	378.6
Lard and rendered pork fat 3/...	1,223.6	2,612.1	2,122.0	2,122.0	104.2	211.0	74.3	104.1
Oleo oil, oleo stock, edible								
animal stearine, and edible								
tallow	213.4	183.2	233.2	260.7	11.2	11.8	13.7	14.1
Total edible animal fats	3,217.2	3,983.5	3,767.0	3,831.9	142.4	295.6	369.7	496.8
Corn oil	155.2	231.6	259.2	254.6	14.3	19.8	18.6	18.6
Cottonseed oil	1,471.9	1,717.4	1,868.5	1,981.4	479.2	745.5	1,258.2	814.0
Olive oil, edible	5.6	4.4	6.6	1.5	17.7	5.5	4.4	5.9
Peanut oil	87.2	105.0	58.2	69.0	11.8	6.0	9.4	12.0
Soybean oil	418.8	2,478.0	2,515.5	2,377.9	281.3	237.4	202.8	175.8
Total edible vegetable oils...	2,138.7	4,536.5	4,708.0	4,684.4	804.2	1,014.1	1,493.5	1,026.3
Soap fats and oils								
Tallow, inedible, and greases								
excluding wool grease 4/.....	1,167.2	2,318.3	2,690.4	2,621.4	344.6	374.6	300.2	261.9
Palm oil	---	---	---	---	25.5	17.3	14.3	20.1
Fish oil	201.9	122.0	154.1	161.0	62.8	65.6	47.6	52.5
Whale and seal oils	35.9	---	---	---	.8	.9	5/	5/
Olive oil, inedible and foots...	6/	7/	---	---	5.5	3.5	2.0	2.8
Coconut oil	298.4	434.6	422.3	432.1	100.9	55.5	80.8	79.1
Total soap fats	1,703.4	2,874.9	3,266.8	3,214.5	540.1	517.4	444.9	416.4
Drying oils								
Castor oil, dehydrated	8/	16.0	17.4	17.5	5.1	3.8	4.8	4.1
Linseed oil	277.3	545.3	503.1	651.5	698.2	671.5	551.3	222.4
Oiticica oil	---	---	---	---	7.3	3.9	4.1	4.3
Tung oil	1.3	23.2	43.2	31.9	15.8	15.9	30.8	51.5
Total drying oils	278.6	584.5	563.7	700.9	726.4	695.1	591.0	282.3
Other industrial oils and fats								
Neat's-foot oil	4.5	1.8	2.2	1.9	1.1	.8	1.0	.9
Sperm-oil 5/	---	---	---	---	24.9	18.5	19.6	10.1
Wool grease	8.7	8.5	9.0	5.4	.5	.3	1.6	1.5
Cod oil and fish-liver oils ...	5.4	2.1	1.4	1.6	9.3	6.5	6.2	5.2
Castor oil, No.1 and No.3 9/...	90.4	57.9	48.8	43.0	17.7	22.0	45.0	25.8
Rapeseed oil	---	1.3	8/	---	2.4	2.3	2.8	1.6
Other vegetable oils	63.2	19.4	27.6	28.0	21.8	17.6	27.7	33.8
Total	172.2	91.0	89.0	79.9	77.7	67.9	103.9	78.9
Grand total 10/.....	11/8,659.5	11/12,573.4	11/12,862.2	11/12,966.3	2,290.8	2,590.1	3,003.1	2,300.7
From domestic materials	51/3,207.5	51/12,060.3	51/12,371.2	51/12,473.7				
From imported materials	452.0	513.1	490.9	492.7				
FAT-AND-OIL PRODUCTS								
Margarine 12/ 13/ -- Colored .	2.4	1,156.2	1,228.0					
Uncolored	351.9	129.7	63.8					
Total	354.3	1,286.0	1,291.8	1,364.3	18.8	25.4	21.8	27.3
Shortening.....	1,422.4	1,611.4	1,674.7	1,961.2	101.4	93.7	93.9	122.8
Tall oil	29.6	312.8	318.5	357.4	76.5	85.0	80.9	46.3

1/ Factory production except as otherwise noted.

2/ Creamery butter production and cold-storage stocks, United States Department of Agriculture.

3/ Total commercial. Excludes farm production. Federally inspected in 1954 totaled 1,831.3 million pounds.

4/ Total apparent production, Agricultural Marketing Service. (Computed from factory consumption, trade and stocks).

5/ Included in Sperm-oil.

6/ Less than 50,000 pounds.

7/ Included in "Other vegetable oils."

8/ Not reported separately.

9/ Production of No. 1 and No. 3 minus production of dehydrated castor oil.

10/ Computed from unrounded numbers.

11/ Includes estimated output of farm butter and farm lard, 1,149 million pounds in 1937-41; 503 million pounds in 1952; and 468 million pounds in 1953; and 455 million pounds in 1954.

12/ Stocks held at production plants only.

13/ The breakdown between colored and uncolored margarine is not available after December 1953.

Compiled from reports of the Bureau of the Census, except as noted. Data include stocks held by the Government in reported position.

Table 20.- Imports and exports of fats, oils, oil-bearing materials and fat-and-oil products in terms of oil

Item	Imports for consumption				Exports 1/			
	Average	1952	1953	1954	Average	1952	1953	1954
	1937-41				1937-41			
	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.
Food fats and oils								
Butter	3.8	.5	.1	1.0	9.5	2.4	26.3	60.9
Lard	2/	6.8	2/	---	272.7	693.3	475.3	519.4
Oleo oil	---	---	---	---	3.8	4.5	7.1	3.4
Oleo stock	---	---	---	---	2.9	19.6	15.4	15.7
Stearine, animal, edible	1.0	.2	2/	---	.3	1.1	2.4	2.0
Tallow, edible	2.9	2/	2/	---	.2	11.3	19.7	14.9
Total, edible animal fats	7.7	7.5	.1	1.0	289.4	732.2	546.2	616.3
Cottonseed oil	72.1	---	2/	---	11.0	105.2	75.9	589.7
Cottonseed (15.5 percent)	---	---	---	---	---	3.5	4.1	4.3
Olive oil, edible	48.5	45.6	44.9	61.4	---	---	---	---
Peanut oil	16.1	---	1.5	6.2	2.4	15.0	.6	8.7
Peanuts, shelled (43 percent)	---	---	---	---	---	---	13.3	56.0
Soybean oil	7.0	2/	---	---	10.5	223.0	48.8	76.7
Soybeans (18.3 percent) 3/	---	2/	.2	.2	30.9	235.5	428.2	465.1
Stearine, vegetable oil, winter	---	---	---	---	---	2.8	2.1	.1
Other vegetable oils	39.7	5.6	5.0	8.8	14.7	41.9	49.0	63.4
Total, edible vegetable oils	183.4	51.2	51.6	76.6	69.5	626.9	622.0	1,264.0
Soap fats and oils								
Fish and fish liver oils non-medicinal	2.6	15.2	11.9	15.5	2.7	46.2	108.5	141.6
Greases	---	.3	.1	2.6	4.5	95.5	180.9	165.3
Marine mammal oils	25.4	42.0	35.4	19.3	2.9	.2	.3	.2
Foots and soap stock, including olive oil	25.7	2.4	1.6	3.9	---	11.4	10.7	11.3
Palm oil	301.2	51.2	35.7	66.1	17.3	---	---	---
Tallow, inedible	7.7	.5	.5	1.1	1.5	652.8	1,016.1	996.9
Total, slow-lathering oils	362.6	111.6	85.2	108.5	28.9	806.1	1,316.5	1,315.3
Babassu oil	.4	1.9	---	---	---	---	---	---
Babassu kernels (63 percent)	48.9	---	---	---	---	---	---	---
Coconut oil	362.8	120.3	137.6	140.0	33.4	38.1	13.1	11.2
Copra (63 percent)	335.9	410.0	407.1	423.0	27.8	---	---	.1
Palm kernel oil	28.8	11.2	50.5	49.9	---	---	---	---
Tucum kernels (43 percent)	2.4	.2	2/	---	---	---	---	---
Total, lauric-acid oils	779.2	543.6	595.2	612.9	61.2	38.1	13.1	11.3
Drying oils								
Flaxseed (35.4 percent)	351.7	2/	.1	.4	---	36.8	.3	192.2
Linseed oil	.1	2/	2/	---	3.3	19.0	91.4	444.5
Oiticica oil	16.0	7.8	9.7	8.7	---	---	---	---
Tung oil	100.4	29.9	23.5	36.5	5.0	1.0	.4	.2
Total	468.2	37.7	33.3	45.6	8.3	56.8	92.2	633.9
Other industrial oils and fats								
Cashew nut shell liquid (oil)	2.7	10.9	13.8	8.9	---	---	---	---
Castor oil	.5	111.8	127.1	56.4	1.0	.6	.6	1.0
Castor beans (45 percent)	95.0	63.4	51.5	49.1	---	---	---	---
Fish-liver oils, medicinal	46.7	24.6	22.7	26.0	---	.3	.4	.3
Neat-foot oil and stock	---	.1	.3	.2	.6	.3	.4	.3
Rapeseed oil	10.3	4.1	6.1	3.3	---	---	---	---
Wool grease	3.0	6.2	9.1	6.4	---	---	---	---
Other vegetable oils and fats, inedible	19.0	.7	.4	.1	7.3	4.1	12.4	11.3
Total	177.2	221.8	231.0	150.4	8.9	5.3	13.8	12.9
Other products (fat content)								
Margarine 4/	1.9	.1	.1	.1	1.3	6.6	6.7	7.9
Shortening	1.4	2/	---	---	8.0	9.9	14.8	12.5
Cooking and salad oils	---	---	---	---	---	4.3	1.9	5.9
Salad products 5/	---	---	---	---	---	1.7	1.8	2.1
Soap	2.8	.5	.8	.8	30.8	32.2	29.6	26.8
Fatty acids	---	4.4	2.9	2.7	---	39.7	23.8	15.4
Total	6.1	5.0	3.8	3.6	40.1	94.4	78.6	70.6
Grand total 6/	1,984.6	978.5	1,000.2	998.4	506.3	2,359.8	2,682.1	3,924.5
Tall oil	---	---	---	---	1.7	34.7	42.4	61.1

1/ Includes shipments of butter, lard and manufactured products to U.S. Territories, re-exports of coconut, palm, and tung oils, olive-oil foots and copra.

2/ Less than 50,000 pounds.

3/ 1937-41, 15 percent. January-September 1952, 16.3 percent. October 1952-September 1953, 16.7 percent, October 1953-September 1954, 17.5 percent.

4/ Imported margarine goes largely to Puerto Rico and the Virgin Islands.

5/ Includes mayonnaise and salad dressing.

6/ Computed from unrounded numbers.

Compiled from Foreign Commerce and Navigation of the United States, reports of the Bureau of the Census, and United States Department of Agriculture.

Table 21.- Fats, oils, including margarine and shortening, and tall oil: Production from domestic and imported materials, and factory and warehouse stocks at end of month

Items grouped by major use	Production 1/				Stocks			
	October-January		1954		1955		1954	
	1953-54	1954-55	January	December	January	Jan. 31	Dec. 31	Jan. 31
	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.
PRIMARY FATS AND OILS								
Food fats and oils								
Butter 2/.....	410.7	378.5	118.7	97.0	106.9	294.0	378.6	341.7
Lard and rendered pork fat 3/..	779.0	919.0	190.0	259.0	236.0	75.5	104.1	124.4
Oleo oil, oleo stock, edible								
animal stearine, and edible								
tallow	83.0	90.2	21.3	20.7	23.2	12.5	14.1	17.1
Total edible animal fats	1,272.7	1,387.7	330.0	376.7	366.1	382.0	496.8	483.2
Corn oil	84.5	88.4	19.9	22.1	21.1	19.6	18.6	17.8
Cottonseed oil	968.3	828.7	234.5	196.9	196.3	1,335.7	814.0	802.2
Olive oil, edible	.7	1.2	.5	.2	1.0	3.3	5.9	7.1
Peanut oil	25.4	8.3	6.7	2.7	2.1	9.5	12.0	12.8
Soybean oil	904.0	934.2	228.4	227.8	231.0	242.4	175.8	198.7
Total edible vegetable oils...	1,982.9	1,860.8	490.0	449.7	451.5	1,610.5	1,026.3	1,038.6
Soap fats and oils								
Tallow, inedible, and greases								
excluding wool grease 4/	903.8	927.6	222.4	237.3	241.5	307.0	261.9	275.3
Palm oil.....	---	---	---	---	---	17.5	20.1	21.9
Fish oil	26.6	28.7	1.0	6.4	.3	43.1	51.0	41.6
Whale and seal oils	---	---	---	---	---	---	---	---
Olive oil, inedible and foots...	---	---	---	---	---	1.8	2.8	5/
Coconut oil.....	151.7	148.7	38.3	35.5	36.7	85.7	79.1	80.7
Total soap fats	1,082.1	1,105.0	261.7	279.2	278.5	455.1	414.9	419.5
Drying oils								
Castor oil, dehydrated	4.8	5.6	1.2	1.4	1.3	5.0	4.1	2.4
Linseed oil	212.9	227.7	52.1	54.2	46.2	517.0	222.4	213.7
Oiticica oil	---	---	---	---	---	3.4	4.3	3.9
Tung oil	20.1	9.8	7.8	4.0	4.4	39.4	51.5	53.4
Total drying oils	237.8	243.1	61.1	59.6	51.9	564.8	282.3	273.4
Other industrial oils and fats								
Neat's-foot oil	.8	6/4	.2	.1	7/	1.0	.9	7/
Sperm-oil	---	---	---	---	---	20.1	10.1	8.2
Wool grease	2.0	5/1.1	.4	.4	7/	1.5	1.5	7/
Cod oil and fish-liver oils ...	.6	1.0	8/	.4	.2	6.2	5.2	1.6
Castor oil, No.1 and No.3 9/...	16.1	14.9	3.9	3.9	5.0	43.5	25.8	28.8
Rapeseed oil	---	---	---	---	---	2.7	1.6	1.5
Other vegetable oils	8.4	7.8	1.7	2.4	1.5	25.9	33.8	37.3
Total	27.9	25.2	6.2	7.2	6.7	100.9	78.9	77.4
Grand total 10/.....	11/4,829.7	11/4,842.6	1,149.2	1,172.4	1,154.8	3,113.3	2,299.1	2,492.0
From domestic materials	11/4,657.0	11/4,673.3	1,105.6	1,131.6	1,111.6	---	---	---
From imported materials	172.7	169.2	43.5	40.8	43.1	---	---	---
FAT-AND-OIL PRODUCTS								
Margarine 12/ -- Colored								
Uncolored								
Total	482.9	493.5	132.0	116.3	124.5	23.4	27.3	23.8
Shortening.....	637.2	719.9	132.5	178.9	172.5	92.0	122.8	119.8
Tall oil	100.5	139.4	24.5	32.9	38.2	82.9	46.3	51.1

1/ Factory production except as otherwise noted.

2/ Creamery butter production and cold-storage stocks, United States Department of Agriculture.

3/ Total commercial. Excludes farm production. Federally inspected in October 1953-January 1954 totaled 670.3 million pounds, October 1954-January 1955 totaled 799.7 million pounds.

4/ Total apparent production, Agricultural Marketing Service. (Computed from factory consumption, trade and stocks.)

5/ Not shown separately.

6/ October-December.

7/ Not reported after December 1954.

8/ Less than 50,000 pounds.

9/ Production of No. 1 and No. 3 minus production of dehydrated castor oil.

10/ Computed from unrounded numbers.

11/ Includes estimated output of farm butter and farm lard, 226 million pounds in October 1953-January 1954. 221 million pounds in October 1954-January 1955.

12/ The breakdown between colored and uncolored margarine is not available after December 1953.

Compiled from reports of the Bureau of the Census, except as noted. Data include stocks held by the Government in reported position.

Table 22.- Imports and exports of fats, oils, oil-bearing materials and fat-and-oil products in terms of oil

Item	Imports for consumption				Exports 1/			
	October - January :		January		October - January :		January	
	1953-54	1954-55	1954	1955	1953-54	1954-55	1954	1955
	Mill.lb.	Mill.lb.	Mill.lb.	Mill.lb.	Mill.lb.	Mill.lb.	Mill.lb.	Mill.lb.
Food fats and oils								
Butter	.5	.3	.4	.1	12.4	39.7	2/	11.1
Lard	---	---	---	---	124.0	213.2	33.6	54.8
Oleo oil	---	---	---	---	1.8	.8	.5	.2
Oleo stock	---	---	---	---	4.1	8.9	1.5	2.3
Stearine, animal, edible	---	---	---	---	1.3	.2	.2	.1
Tallow, edible	---	---	---	---	8.4	1.3	.5	.4
Total, edible animal fats	.5	.3	.4	.1	152.0	264.1	36.3	68.9
Cottonseed oil	---	---	---	---	47.1	289.4	7.0	67.9
Cottonseed (15.5 percent)	---	---	---	---	1.4	2.4	.5	1.9
Olive oil, edible	16.8	20.4	3.2	4.0	---	---	---	---
Peanut oil	1.5	8.9	---	2.7	1.2	.1	1.2	2/
Peanuts, shelled (43 percent)	---	---	---	---	25.9	---	12.5	---
Soybean oil	---	---	---	---	11.8	16.6	3.4	2.9
Soybeans (18.3 percent) 3/	.2	---	---	---	286.4	356.0	38.5	57.7
Stearine, vegetable oil, winter	---	---	---	---	.6	---	.1	---
Other vegetable oils	1.4	1.5	.7	.2	16.5	19.8	3.7	1.4
Total, edible vegetable oils	19.9	30.8	3.9	6.9	390.9	684.3	67.0	131.8
Soap fats and oils								
Fish and fish liver oils non-medicinal	7.5	9.6	1.6	4.2	51.5	35.1	12.3	11.8
Greases	---	1.2	---	.2	63.6	59.5	11.8	17.3
Marine mammal oils	13.6	12.0	2/	6.0	2/	.1	2/	---
Foots and soap stock, including olive oil	1.6	.1	2/	2/	2.3	3.7	.8	.5
Palm oil	13.6	26.5	5.5	8.6	---	---	---	---
Tallow, inedible	.1	.3	---	.2	347.2	339.6	77.4	83.9
Total, slow-lathering oils	36.4	49.7	7.3	19.2	464.6	438.0	102.3	113.5
Babassu oil	---	---	---	---	---	---	---	---
Babassu kernels (63 percent)	---	---	---	---	---	---	---	---
Coconut oil	59.3	51.2	13.6	10.5	3.8	4.4	.9	1.2
Copra (63 percent)	146.4	131.2	43.0	32.1	.1	3.3	.1	3.3
Palm kernel oil	7.4	27.8	.5	5.1	---	---	---	---
Tucum kernels (43 percent)	---	---	---	---	---	---	---	---
Total, lauric-acid oils	213.1	210.2	57.1	47.7	3.9	7.7	1.0	4.5
Drying oils								
Flaxseed (35.4 percent)	.1	---	---	---	2/	84.2	---	14.0
Linseed oil	---	---	---	---	110.8	134.1	22.3	34.4
Oiticica oil	3.7	2.1	---	.6	---	---	---	---
Tung oil	17.8	10.7	3.8	1.5	.1	2/	.1	---
Total	21.6	12.8	3.8	2.1	110.9	218.3	22.4	48.4
Other industrial oils and fats								
Cashew nut shell liquid (oil)	5.0	3.4	.8	.9	---	---	---	---
Castor oil	18.7	23.5	2.4	6.7	.3	.4	.1	.1
Castor beans (45 percent)	18.6	18.7	5.9	7.3	---	---	---	---
Fish-liver oils, medicinal	6.6	7.8	1.8	2.3	.2	.1	2/	2/
Neat's-foot oil and stock	2/	2/	---	---	.1	.1	2/	2/
Rapeseed oil	2.5	1.8	.1	.1	---	---	---	---
Wool grease	2.1	1.6	.4	.7	---	---	---	---
Other vegetable oils and fats, inedible	.1	.1	2/	2/	4.4	3.4	1.0	.7
Total	53.6	56.9	11.4	18.0	5.0	4.0	1.1	.8
Other products (fat content)								
Margarine 4/	2/	.1	2/	2/	1.0	1.3	.2	.2
Shortening	---	---	---	---	9.0	5.9	1.6	2.0
Cooking and salad oils	---	---	---	---	.3	3.5	2/	5/
Salad products 6/	---	---	---	---	.7	.8	.2	.2
Soap	.3	.4	2/	.1	6.9	5.5	1.4	1.1
Fatty acids	.9	.2	.1	2/	6.9	6.3	.9	1.2
Total	1.2	.7	.1	.1	24.8	23.3	4.3	4.7
Grand total 7/	346.3	361.3	84.1	94.0	1,152.1	1,639.8	234.3	372.3
Tall oil	---	---	---	---	13.7	24.2	1.5	8.4

1/ Includes re-exports of coconut, palm, and tung oils, olive-oil foots and copra. Does not include shipments.

2/ Less than 50,000 pounds.

3/ October 1953-January 1954, 17.5 percent.

4/ Imported margarine goes largely to Puerto Rico and the Virgin Islands.

5/ Included in "Other vegetable oils, edible" beginning January 1955.

6/ Includes mayonnaise and salad dressing.

7/ Computed from unrounded numbers.

Compiled from reports of the Bureau of the Census, and the United States Department of Agriculture.

Table 23.- Imports and exports of fats, oils, oil-bearing materials
and fat-and-oil products in terms of oil

Item	Imports for consumption				Exports 1/			
	November		December		November		December	
	1953	1954	1953	1954	1953	1954	1953	1954
	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.	Mil.lb.
Food fats and oils								
Butter	.1	.1	.1	.1	2.2	13.6	7.5	9.5
Lard	---	---	---	---	32.9	55.0	38.2	57.3
Oleo oil	---	---	---	---	.3	.2	.4	.1
Oleo stock	---	---	---	---	.5	2.4	1.9	1.9
Stearine, animal, edible	---	---	---	---	.5	2/	.5	2/
Tallow, edible	---	---	---	---	1.4	.5	3.7	.1
Total, edible animal fats	.1	.1	.1	.1	37.7	71.7	52.1	68.9
Cottonseed oil	---	---	---	---	13.1	110.5	9.4	85.5
Cottonseed (15.5 percent)	---	---	---	---	.1	.1	.6	.4
Olive oil, edible	3.4	5.9	6.1	5.7	---	---	---	---
Peanut oil	---	.9	---	5.2	2/	2/	2/	2/
Peanuts, shelled (43 percent)	---	---	---	---	9.2	---	.3	---
Soybean oil	---	---	---	---	4.1	4.3	2.5	4.4
Soybeans (18.3 percent) 3/.....	2/	---	.2	---	106.2	136.9	80.8	91.0
Stearine, vegetable oil, winter	---	---	---	---	---	---	.5	---
Other vegetable oils	.2	.2	.3	.2	3.6	4.8	3.3	6.9
Total, edible vegetable oils	3.6	7.1	6.6	11.2	136.3	256.6	97.4	188.2
Soap fats and oils								
Fish and fish liver oils non-medicinal	1.5	1.0	2.9	2.9	5.8	11.9	16.0	1.9
Greases	---	.4	---	.2	13.8	13.7	21.8	11.2
Marine mammal oils	2.7	.8	3.6	1.0	---	---	2/	---
Foots and soap stock, including olive oil	2/	---	---	2/	2/	1.4	.3	1.1
Palm oil	.7	5.3	3.8	2.7	---	---	---	---
Tallow, inedible	---	---	---	.1	69.6	88.0	98.3	80.1
Total, slow-lathering oils	4.9	7.5	10.3	7.0	89.1	115.0	136.3	94.3
Babassu oil	---	---	---	---	---	---	---	---
Babassu kernels (63 percent)	---	---	---	---	---	---	---	---
Coconut oil	17.6	18.0	15.9	6.4	.7	.9	.8	1.2
Copra (63 percent)	32.0	30.4	34.4	31.5	---	---	---	---
Palm kernel oil	2.0	4.3	1.7	6.4	---	---	---	---
Tucum kernels (43 percent)	---	---	---	---	---	---	---	---
Total, lauric-acid oils	51.6	52.7	52.0	44.3	.7	.9	.8	1.2
Drying oils								
Flaxseed (35.4 percent)	2/	---	2/	---	2/	33.4	---	18.4
Linseed oil	---	---	---	---	28.9	.2	57.3	22.8
Oiticica oil	.8	.6	1.1	.4	---	---	---	---
Tung oil	7.4	6.1	6.3	2.6	2/	2/	2/	2/
Total	8.2	6.7	7.4	3.1	28.9	33.6	57.4	41.2
Other industrial oils and fats								
Cashew nut shell liquid (oil)	2.1	1.3	.9	.4	---	---	---	---
Castor oil	5.4	4.2	7.6	3.6	.1	.1	2/	2/
Castor beans (45 percent)	3.9	.6	1.7	5.6	---	---	---	---
Fish-liver oils, medicinal	1.5	1.9	1.7	1.3	2/	2/	.1	2/
Neat's-foot oil and stock	---	2/	---	---	2/	2/	.1	2/
Rapeseed oil	.4	1.2	1.4	.4	---	---	---	---
Wool grease	.5	.3	.5	.3	---	---	---	---
Other vegetable oils and fats, inedible	2/	---	---	2/	.5	.7	1.1	1.1
Total	13.8	9.4	13.8	11.7	.7	.8	1.3	1.2
Other products (fat content)								
Margarine 4/.....	---	2/	2/	2/	.2	.4	.3	.2
Shortening	---	---	---	---	4.8	1.0	2.0	2.2
Cooking and salad oils	---	---	---	---	.1	.5	.1	2.8
Salad products 5/.....	---	---	---	---	.2	.2	.2	.2
Soap	.1	.1	.1	.1	1.7	1.6	1.7	1.2
Fatty acids	.2	2/	.3	.1	1.7	1.3	3.0	2.2
Total	.3	.1	.4	.2	8.7	5.1	7.3	8.9
Grand total 6/.....	82.3	83.5	90.5	77.5	302.1	483.8	352.7	404.0
Tall oil	---	---	---	---	1.6	5.5	7.7	5.2

1/ Includes re-exports of coconut, palm, and tung oils, olive-oil foots and copra. Does not include shipments.

2/ Less than 50,000 pounds.

3/ November-December 1953, 17.5 percent.

4/ Imported margarine goes largely to Puerto Rico and the Virgin Islands.

5/ Includes mayonnaise and salad dressing.

6/ Computed from unrounded numbers.

Compiled from reports of the Bureau of the Census, and the United States Department of Agriculture.

Table 24.- Index numbers of wholesale prices of fats and oils

Item	1947-49=100				
	February		1954	1955	
	1953	1954	December	January	February
All fats and oils	73	79	72	71	71
All fats and oils, except butter	58	70	63	63	62
Grouped by origin:					
Animal fats	72	85	77	75	74
Vegetable oils, domestic	67	63	62	62	62
Vegetable oils, foreign	97	83	71	73	72
Grouped by use:					
Butter	97	95	88	85	85
Butter, seasonally adjusted	95	93	81	83	83
Lard	44	88	67	64	62
Food fats other than butter	59	74	66	65	64
Food fats other than butter and lard:	69	65	66	65	65
All edible fats and oils	79	85	78	75	75
Soap fats	49	63	58	61	61
Drying oils	75	66	60	59	59
Other industrial	60	62	59	61	60
All industrial	56	63	59	61	60
Edible vegetable oils, grouped by					
degree of processing:					
Crude	70	65	66	65	65
Refined	70	70	74	74	74
End products	83	81	84	83	84

All indexes except "Butter, seasonally adjusted" and "Other industrial" from Bureau of Labor Statistics.

Table 25.- Price received by farmers and prices at terminal markets for specified oil-bearing materials and oilmeals

Item	Unit	February				
		1953	1954	December	January	February
		Dollars	Dollars	Dollars	Dollars	Dollars
Castor beans, Brazilian ports	Long ton	170.00	102.50	103.20	104.00	101.00
Copra, Philippines, c.i.f. Pacific Coast	Short ton	218.75	205.00	171.50	178.00	174.38
Cottonseed, United States average	Short ton	64.50	51.40	59.60	56.80	55.20
Flaxseed, No. 1, Minneapolis	Bushel	3.90	3.89	3.38	3.34	3.36
Flaxseed, United States average	Bushel	3.54	3.47	3.04	3.00	2.99
Peanuts, No. 1, shelled, Spanish,						
Southeastern shipping points*	100 lb.	20.25	18.50	24.75	24.88	25.25
Peanuts, United States average	100 lb.	11.00	11.20	12.50	12.60	12.50
Soybeans, No. 2, Yellow, Chicago	Bushel	2.82	---	2.78	2.76	2.76
Soybeans, No. 2, Yellow, Illinois						
country shipping points	Bushel	2.82	3.17	2.73	2.74	2.74
Soybeans, United States average	Bushel	2.63	2.97	2.57	2.58	2.61
Oilseed Meals 1/						
Copra meal, Los Angeles 2/	Short ton	87.60	75.10	66.00	3/	3/
Cottonseed meal, 41 percent protein, Memphis ..	Short ton	78.25	67.50	67.90	70.50	66.50
Cottonseed meal, 41 percent protein, Chicago ..	Short ton	85.65	77.50	81.30	80.50	77.80
Linseed meal, 36 percent protein,						
Minneapolis 3/	Short ton	78.00	73.90	72.50	72.75	70.40
Linseed meal, 34 percent protein, New York ..	Short ton	105.00	89.50	86.75	87.25	86.45
Peanut meal, 45 percent protein, f.o.b.						
Southeastern mills	Short ton	80.15	76.70	80.00	79.50	78.75
Soybean meal, 44 percent protein, Chicago 4/ ..	Short ton	78.10	88.10	79.50	78.35	76.10
Soybean meal, 44 percent protein, bulk,						
Decatur 4/	Short ton	64.90	77.10	68.25	67.10	65.60

1/ Bagged carlots, except soybean meal at Decatur, which is bulk. 2/ Original quotations adjusted to bagged-carlots basis. 3/ Not available.

*This price applies to peanuts for edible uses.

Compiled from Oil, Paint, and Drug Reporter, Daily Market Record (Minneapolis), Wall Street Journal, Chicago edition, reports of Agricultural Marketing Service, and records of Commodity Stabilization Service.

Table 26.-- Fats, oils, oilseeds and soap, in terms of oil: U. S. exports and shipments by destination, year beginning October

Item	MSA countries 1/		Non-MSA European countries		Canada		Cuba		Other Latin American Republics		Japan, Korea and Ryukyu		Puerto Rico and Virgin Islands 2/		All other countries		Total 3/	
	1952-53	1953-54	1952-53	1953-54	1952-53	1953-54	1952-53	1953-54	1952-53	1953-54	1952-53	1953-54	1952-53	1953-54	1952-53	1953-54	1951-52	1952-53
	lb.	ml.	lb.	ml.	lb.	ml.	lb.	ml.	lb.	ml.	lb.	ml.	lb.	ml.	lb.	ml.	lb.	ml.
Food fats and oils:																		
Lard	160	129	30	26	5	4	147	154	118	84	3	2	50	58	3	*	751	516
Edible beef fats 4/	23	17	*	-	*	*	1	2	4	20	5	1	-	-	5	1	35	38
Soybeans 5/	75	161	2	-	45	49	*	-	*	-	145	168	-	-	49	36	167	316
Soybean oil	64	51	-	-	15	15	4	3	4	1	-	*	-	-	6	1	270	93
Peanuts, shelled (43 percent)	*	56	-	-	-	-	-	-	*	*	-	-	-	-	*	14	*	*
Peanut oil	*	7	*	-	1	1	*	*	*	*	*	-	-	-	*	27	*	69
Cottonseed oil	*	299	-	-	39	59	*	2	8	34	*	*	-	-	4	3	123	51
Other edible 6/	7	14	*	2	17	20	6	7	21	26	2	4	10	13	9	9	53	83
Total edible	329	734	32	28	122	148	158	168	155	165	155	175	60	71	76	64	1,426	1,098
Non-food fats and oils:																		
Inedible tallow and greases 7/	565	621	34	27	16	14	28	33	84	134	196	215	-	-	147	142	720	1,070
Flaxseed (35.4 percent)	-	117	-	-	*	*	*	-	*	*	-	4	-	-	*	1	55	122
Linseed oil	*	426	1	-	*	*	1	2	1	1	*	*	-	-	1	1	19	4
Soap (fat content)	2	2	-	*	3	2	1	*	8	8	3	3	12	9	2	4	32	31
All other 8/	115	151	*	-	16	23	7	7	15	12	*	*	-	-	8	7	137	161
Total inedible	682	1,317	35	27	35	39	37	42	108	155	199	222	12	9	158	155	963	1,266
Grand total	1,011	2,051	67	55	157	187	195	210	263	320	354	397	72	80	234	219	2,389	3,364

1/ Austria, Belgium, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Netherlands, Norway, Sweden, Switzerland, Trieste, Turkey, United Kingdom, Portugal and dependent overseas territories.

2/ Partly estimated in 1953-54

3/ Includes voluntary relief and Section 416 for butter for which no country breakdown is available or shown.

4/ Edible tallow, oleo oil, oleostearine, and oleo stock.

5/ 16.7 percent in 1952-53, 17.5 percent in 1953-54.

6/ The principal items included are butter (including exports under "Section 416" which are not contained in Census data), margarine, shortening, vegetable oils not specified by kind, and cottonseed (15.5 percent).

7/ Inedible tallow, grease stearine, lard oil, and other inedible fats, oils and greases.

8/ The principal items included are fatty acids (mainly from tallow and vegetable oils), fish and whale oil, castor oil, coconut oil, and all other inedible oils. Includes re-exports of palm, tung and coconut oils.

* Less than 500,000 pounds.

U. S. Department of Agriculture
Washington 25, D. C.

Penalty for private use to avoid
payment of postage \$300

OFFICIAL BUSINESS

AMS-FOS-171-3-55

:
: NOTICE
: If you no longer need this
: publication, check here ☐
: return this sheet, and your
: name will be dropped from the
: mailing list.
:
: If your address should be
: changed, write the new address
: on this sheet and return the whole
: sheet to:
: Agricultural Marketing Service,
: United States Department of
: Agriculture
: Washington 25, D. C.
: